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THE KITCHEN
BY THE AUTHOR OF ENQUIRE WITHIN
THE FIELD
THE STUDY

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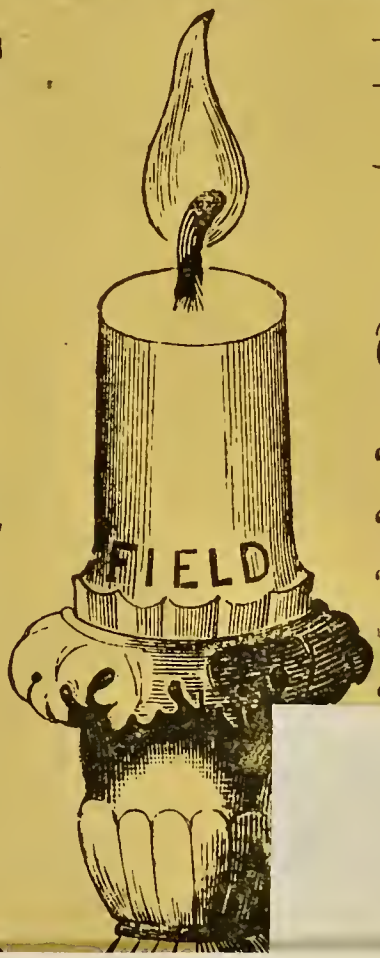

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Sold in Bottles at *1s.* 1½*d.*, *2s.* 9*d.*, *4s.* 6*d.*, and *11s.* eaeh. None is genuine without the words "DR. J. COLLIS BROWNE'S CHLORODYNE" on the Government Stamp. Overwhelming Medical Testimony aeeompanies eaeh Bottle.

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1871.

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BEST OF EVERYTHING

BY THE

AUTHOR OF "ENQUIRE WITHIN."

PHILP (Robert K.)

"A Handful of Common Sense is worth a Bushel of Learning."

SPANISH PROVERB.

"WE have been upon a visit to an old Friend, through whose generous hospitality we enjoyed the 'Best of everything." "She has married well, and is surrounded by the 'Best of everything.'"

These are Household Words, familiar wherever the English language is spoken. The Author attempts, in a Domestic and Social sense, to supply the Reader with the "Best of Everything." He endeavours to give, upon each subject of Enquiry, a practical Reply, and that, presumably, THE BEST. Upon the question, "Which *is* Best?" of many things for similar use, difference of opinion will prevail. The Author, however, takes his seat in the Court of Domestic Judgment, having "gone the Circuit" during many years, and been consulted as an Authority by HALF A MILLION OF SUITORS. He therefore fears not to assume the character of a Family Lawgiver, and will do his "BEST" to guard the reputation already earned.

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TO OUR READERS.

Fifteen years ago, the Author of the "Best of Everything" conceived the idea of submitting to the Public a Work, embracing great variety and utility,—teaching, in simple language, the methods of performing Domestic Duties, in the sunshine of Health, and under the dark cloud of Sickness. To those matters of practical importance, were added numerous Hints and Instructions upon the forms of Etiquette and Social Laws, and the rules of Home Amusements. In a spirit of humour, also, the foibles and errors that imperceptibly but surely corrode Domestic peace were reproved.

How acceptable to the Public the Author's labour proved, may be gathered from the fact, that in Great Britain "Enquire Within upon Everything" (the work above referred to) has reached a circulation of nearly Half a Million copies, and in the United States of America a sale considerably more extensive.

Not to the Author, but to the Public, belongs the honour of this result. To it, in chief, must be accorded the credit of having selected from among a mass of sensational and morbid literature, one modest Volume, of unpretending appearance, quiet, practical, and quaint in every page, and of having given it pre-eminence over every Work of its time.

Within fifteen years many new matters of interest have arisen. There are discoveries made, not by the adventures of geographical explorers, nor watchers of the starry skies,—there are domestic Livingstones, and homely Herschels, who contribute to the more immediate necessities of life,—and hence there has accumulated a new Store of practical Suggestions to aid the busy

hand of the Housewife, and guide the ministering care of the Nurse. There are new Amusements, new Laws affecting Domestic Life and responsibility, new Gifts from the hand of Providence for the daily requirements of Mankind, new Methods of preventing Disease, or soothing Pain; and the Author of "THE BEST OF EVERYTHING" has earnestly endeavoured, in the compilation of the present volume, to work up to the Domestic Improvements of the Age, and to those who have already shown their appreciation of "ENQUIRE WITHIN," to furnish the "BEST OF EVERYTHING" in relation to Domestic Life, the result of fifteen years' Invention, Improvement, and Discovery, in all that relates to Home Necessities and Enjoyments.

Among the subjects thus introduced will be found Hints upon Choosing and Furnishing Houses, with reference to numerous domestic improvements; Food and Cookery, embracing receipts for the preparation of many new articles of Diet, new receipts for Secondary Cookery, and of prepared and preserved Meats; Domestic Remedies for those minor ailments that fall under the care of the Mother and the Nurse, including Diet and Drinks for Invalids; Cooling Drinks and Cups for Summer, and Drinks for Winter; Needlework of various kinds; Sewing and Knitting Machines; useful Methods of making and mending Textile and other Materials; Washing, Wringing, and Mangling Machines, and valuable hints upon cleaning, removing stains, purifying and disinfecting; Simple Dyes for Home use; New Laws of Married Women's Property, Stamp Laws, Life Insurance, Marriage, Bankruptcy, Property, Trades, and Employment; New Methods of Gardening, and the cultivation of favourite Plants for the conservatory or window; the Management and Economy

of Poultry, Bees, &c.; Bathing, Domestic Ablution, and Valuable Hints as to Turkish, Medicated, and other Baths; Sea Bathing, Swimming, Boating, and Angling, with interesting notes upon the Natural History of the Sea-shore; Seaside and Inland Watering-places; New Parlour and Lawn Games, including Croquet, Bézique, Drôle, La Crosse, &c.; Hints upon Home Decorations; Singing and Musical Instruments; Amateur Acting; Hints on Shorthand Writing, Memory, &c.

It has been deemed advisable to arrange this Work IN MONTHS, commencing with March, the opening of Spring; and in pursuance of this plan, the contents, wherever practicable, have been made appropriate to the particular month under which they appear. Thus, Hints on Bees, Boating, Chickens, &c., will be found under May; Croquet, Golf, Angling, &c., under June; Light Drinks for Summer, Swimming, Seaside Watering-places, &c., in July. Each month has also a Calendar expressly for the Cook and Gardener.

In the collection of the varied and useful matter contained in this Work, the Editor has been assisted by various writers, professional and amateur; and the receipts for Medical remedies have been entirely written by a regularly qualified practitioner. Thus every care has been taken to carry out in fact the promise indicated in the title of the Volume. As far, therefore, as such an end can be accomplished between Author and Reader, there will herein be found, upon matters within the aim and scope of the Work, the "BEST OF EVERYTHING."

In addition to an Outline of the general Contents given at page vii, a copious and carefully prepared Analytical Index will be found at page 389.

LONDON, *November*, 1870.

Maketh Enquiries as to yᵉ Best mode of Cookery,
yᵉ Best description of Needlework, yᵉ latest and Best Medicine,
and yᵉ Best and most favourite Pastimes of yᵉ Period.

The Globe dines, and demands of Soyer, *fils*,
"Whence have you gained your wondrous skill in rations?
Where have you learned the cunning that delights
And soothes the palates of my various nations?"
Soyer, who then, chronometer in hand,
Was bending o'er a saucepan simmering,
Turned and politely to the enquiring World
Said, "I have read the 'Best of Everything.'"

Young Miss Penelope her lock-stitch plies
With fairy needle, time and labour scorning;
"The work you do at even," says the Globe,
"Won't, like your ancient grandma's, in the morning
Be all unravelled? Tell me, my sweet P.,
How thus your needle flies like bird on wing?"
The maiden to the anxious Globe replies,
"You just consult the 'Best of Everything.'"

"Bob Sawyer, you're a flourishing M.D.!"
Exclaims the World, discerning, intellectual,
"Like the potations of the olden time,
Your potions now, and 'drops,' are most effectual;
What," asks the Globe, "is your pharmacopœia?
What is't you give to soothe disease's sting?"
"For all my patients," answers candid Bob,
"I now prescribe the 'Best of Everything.'"

At archery meeting or on croquet lawn,
Who but the fair Amelia wins the prizes?
And at Bézique her "tricks" score all the "points,"
Your deepest play she quickly analyzes.
"How shall we emulate your grace and skill
With bow and mallet?" asks the Globe. And *she*
Bows archly to each Hemisphere and says,
"Do as I did,—*Read up the 'B. of E.!'*"

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BEST OF EVERYTHING.

Counsel is given by the Wise, the Remedy by the Rich.

March Violets.

CULLED FOR OUR READERS.

AGAIN! again! my faery dell,
By the broad river softly flowing!
My birches drooping pencilled sprays,
My cushat crooning amorous lays,
My lark foretelling summer days,
And my March Violets blowing!

This is my palace, this my shrine!
To me and nature almost holy;
Here sits the hare at break of day,
At noon the flashing finches play,
At eve the merles their vespers say
In chants like choristers lowly.

And here as pilgrim steps I turn
To scenes so loved—so long forsaken,
The spirit of returning Spring
Flits near me, and with winnowing wing
The world of Memories doth bring,
That Violets wild awaken.

These for remembrance! You that read
This chanson from the Past I bring,
Be yours the sweets that memory showers,
The Present bliss of happy hours,
The Future of a year of flowers,
The—*Best of Everything!*

D. MURRAY SMITH.

The Month of March.

"*February makes a bridge, and March breaks it.*"

This month consists of thirty-one days. It was the first month in the Roman year, and until 1752 was regarded as the first month of the year in Great Britain. Before that date the legal English year was reckoned from the 25th of March. March is now the third month in the calendar.

The Cook's Calendar for March.

"*March birds are best.*"

FISH IN SEASON.—Salmon, turbot, brill, soles, sturgeon, smelts, oysters, lobsters, crabs, mullet, mackerel, cod, dory, salmon-trout, skate, perch, eels, prawns, whiting, shrimps, pike, cockles, dabs, and carp.

MEAT IN SEASON. — Beef, house lamb, veal, mutton, pork.

POULTRY AND GAME IN SEASON.—Capons, chickens, fowls, green geese, ducklings, hares, rabbits, pigeons, wild ducks, snipe, teal, and widgeon.

VEGETABLES IN SEASON.—Turnips, carrots, parsnips, brocoli, cabbages, celery, asparagus, seakale, cucumbers, lettuces, mustard and cress, mushrooms, spinach, Brussels sprouts, endive, mint.

The Gardener's Calendar for March.

"*A bushel of March dust is worth a king's ransom.*"

March is the most important and busy month for the gardener. All the heavy work of digging, trenching, and preparing the ground ought to be completed during January and February, as March is pre-eminently the month for sowing, planting out, and thinning out the crops for the coming summer, as well as grafting, training, and nailing fruit-trees, planting out roses, &c. Fork up

asparagus and strawberry beds, plant out cauliflower and cabbage plants, also Jerusalem artichokes and hollyhocks; sow leeks, onions, carrots, parsnips, parsley, spinach, peas, beans, lettuce, mustard and cress in the open ground. Sow in a gentle heat melons, cucumbers, capsicums, tomatoes, celery, vegetable marrow,—all except the first two to be planted out in the end of April or early in May. Protect bulbs from frost and wind; top-dress pansies, and sow tender annuals in a warm border, or in pans in a *cool* hotbed.

Best Hints on Choosing, Purchasing, and Building a House.—Choosing a House.—The choice of a house is in importance second only to the selection of a friend. The best residence is one which is not inconveniently distant from your place of business—is in a cheerful and healthy locality, and of which the rent, including rates and taxes, does not exceed one-sixth of your income. Do not choose a neighbourhood merely because it is fashionable, and carefully avoid occupying a dwelling in a locality of doubtful reputation. Be particular as to whether it is dry, with convenient sewage and plenty of water. A southern or western aspect is to be preferred. Should the house be infested with vermin, avoid it. See that the windows and doors are well secured, that there are proper means of ventilation, and that the chimneys do not smoke.

Let all needful repairs be made by the landlord before the completion of your agreement, otherwise you will probably be required to execute them at your own expense. Do not deal with a landlord who is commonly reputed as being disobliging, greedy, or litigious. In every case have a lease properly drawn out and stamped.

Avoid the neighbourhood of a sluggish stream, a mill-dam, or fresh-water lake. The penalties are rheumatism, ague, impaired eyesight, loss of appetite, asthma, and other distressing ailments. Choose a house away from the vicinity of tan-yards, and tallow, soap, and chemical works. The neighbourhood of old and crowded burial-grounds and of slaughterhouses is to be shunned. A low situation is perilous, especially during the prevalence of epidemics.

Never lease a house in a narrow street, unless the back premises are open and extensive. Houses built with sea sand will in the winter months discharge moisture; a residence so constructed is unsuitable for children. A house with two entrance doors is more healthy than with one only. Before closing your bargain try to obtain some account of the house from a former occupant.

Purchasing a House.—In purchasing a house, whether old or new, do not trust to appearances, or rely on your own judgment. When you have selected a house likely to suit your family and your purse, employ a surveyor to inspect every portion of it. He will examine the foundations, the state of the sewage, and the character of the materials which form the walls. He will be able to detect if soft bricks have been used, by finding traces of damp at the bottom of the walls. In examining the joists, flooring, and other woodwork, he will be enabled to report whether cheap American fir has been used instead of well-seasoned timber. By your solicitor you must look into the nature of the tenure and the duration of the building lease. If you can obtain a freehold property, so much the better; if not, be particular in considering whether the ground-rent is such as to justify the purchase; and obtain evidence as to the extent of the parochial and other rates. You will do well to secure a portion of ground beside your house, on which you might erect an addition should your family increase, or your business demand further accommodation. Beware of rashly purchasing fixtures,—such as window-blinds, hall carpets, and kitchen furnishings; new articles may be found in the end more economical. Make an effort to pay the whole of the purchase-money. A bond on your house will endanger your credit, and affect your comfort.

Building a House.—Select your

locality, but before completing your arrangements for the site, ascertain the precise nature of the soil. In a gravelly subsoil you will readily obtain a good foundation; but if clay or moist earth is presented, be cautious. You may indeed procure an artificial foundation by laying a bed of concrete, but this is attended with considerable expense. Consult an architect when you are about to build; he will submit a drawing for your approval, and afterwards prepare working plans and a specification. You should then get the work contracted for by some respectable builder, employing the architect or a surveyor to superintend it. If the dwelling is to be reared of brick, ascertain that the bricks are not spongy, but of the well-burnt kind known as *stocks*. The quality of the mortar must also be ascertained. You should personally inspect the plumber's work, which, if inferior, will afterwards expose you to endless expense. See that the timber employed is Memel or Baltic fir. The form of the roof is important; it ought to be constructed so as at once to permit the rain to escape easily, and to bind the structure. Tiles should not be used in roofing; slates are more durable, and ornamental. Do not allow zinc to be used either as gutters or water-pipes; it wastes under exposure. Provide for the reception-rooms marble chimney-pieces, which much improve the appearance of the rooms. Let cornices and ceiling-centres be of handsome patterns.

Building Societies.—Building Societies are regulated by an Act of Parliament passed in 1836 (6 & 7 Will. IV.). They are established on the principle of enabling the members to become owners of houses by a system of monthly payments, such payments being about one-third more than the ordinary rent. A member of a building society fixes on a house which he is desirous of purchasing. He applies to his society, which employs a surveyor to inspect the tenement; if he approves it, its purchase is effected. The member enters on immediate possession, the society retaining the title-deeds until the purchase-money is paid up. This is done by monthly instalments—a sum equal to 5 per cent. of the principal and 5 per cent. interest being paid by the occupant yearly. The entire debt is usually extinguished in thirteen years, when the house becomes the absolute property of the occupant. Building societies have tended to elevate the condition of the industrial classes, and are to be regarded with countenance and favour.

Hints to House Tenants.—Any one entering on possession of a house is bound to rent it for twelve months. A house occupied without a lease may be quitted by the tenant on his giving six months' notice to the landlord or his agent, but not till the expiry of that period. In like manner the tenant who has no lease must receive six months' notice from his landlord before being required to quit his occupancy. The period of notice does not expire till the first quarter day following the last day of the six months. The English quarter days are Lady Day (25th March), Midsummer (24th June), Michaelmas (29th September), and Christmas (25th December). Rent is payable at noon of the quarter day, but no proceedings for its recovery can be taken till the day following, unless the tenant is removing his goods. Rent may only be legally tendered in the current coin of the realm, or in notes of the Bank of England. When a house is taken by written agreement for a term of three years, the tenancy ceases at the expiration of the term, notice to quit being unnecessary. Queen's taxes are payable on the premises, as are the land tax and sewer rates; it is therefore desirable, on entering a house, to ascertain that these burdens have been discharged. Ground rent, the land tax, the property tax, and sewer rates, are by law imposed on the landlord, and, unless it is otherwise specified in his lease, the tenant can recover these claims from the landlord. Buildings constructed by the tenant, resting on stones or brick may be removed by him before the

expiry of his lease; but erections attached to the soil by posts cannot. A lessee must leave the premises in tenantable repair, though he may have received them in dilapidated condition—the law holding that he should have attended to his interests at his entry.

Best Advice on Papering and Painting.—When a new house has passed out of the hands of the builder and carpenter, the painter and paperhanger take their place. In general it will be found advantageous to restrict the tradesmen to a fixed sum. If you prefer to select your own paperhangings, keep in view these considerations:—When the ceiling is low, oak paper, or any paper of a dark shade, will make it apparently lower still. If a room be defectively lighted, a dark paper will aggravate the evil. Papers with large designs are unsuited to a small room, making it look smaller; and generally papers with a variety of colours and showy patterns are inconsistent with elegance. Striped papers are better adapted for rooms with low ceilings. When pictures are to be hung, paper with floral devices is especially unsuitable. Paper of a uniform colour, such as light or dark green, is admirably adapted for pictures. Brass picture-rods ought to be provided in the principal rooms. *Bloom* paper, lately introduced, is excellently adapted both for reception-rooms and private apartments. The paint of doors and windows ought to exhibit a tint suitable to the paperhangings, even though other portions of the woodwork may not materially vary from the painter's ordinary white or cream colour. The ceiling is generally white.

The best paperhangings which have yet been produced are Lee's "Oleo Charta paperhangings." Not only are the designs chaste and suitable alike to mediæval and modern furniture, with a close texture and a velvet softness, but, without the aid of varnish, they are impervious to wet, and when soiled may be washed with soap and water without injury to the fabric. With respect to its peculiar qualities we have subjected the *Oleo Charta* paper of Messrs. Lee to the most severe tests, and we are of opinion that these entirely justify the claims of the inventors.

How to Hang Pictures.—The worst position in which a painting can be placed is directly opposite a window, as its surface so reflects the light that the object cannot be seen except from a side view. The picture ought to be hung so as to allow the light from the window to fall upon it from the same side in which the artist saw or imagined the picture to appear in nature; that is to say, the shadows in the picture ought to be on that side of the objects which is opposite to the direction from which the light comes: for example, in the case of a tree or house, if the window is on the right hand the shadows on the picture must be towards the left hand of the observer, as if projected from the right side to the left, as would be the case in nature if the light fell upon the right of the objects perceived.

Best Advice on Fire-grates.—The immense variety in the patterns of grates for drawing and dining rooms and private apartments renders it impossible to do more than state some principles by which our choice may be determined. The best modern grates are combinations of the old register stove and the Rumford improvements. The fireplace should have back and sides of firebrick. The bars should be small. A grate with a curved front is to be preferred; it presents a large surface for radiation. Do not choose grates of wide and open construction. The neck of the chimney ought to be closed by a registered plate, to prevent the escape of hot air. The best grates have the bars low, about eight inches from the hearth. A central position in the room is best for the fireplace. Grates with burnished steel fronts are liable to rust, but many grates have two sets of bars, which fit into a socket, one of polished steel for summer, and the other with cast iron bars for winter use.

Best Advice on the Kitchen Range and Boiler.

—The Kitchen Range.—The size, the completeness, the finish, and consequently the expense of this important article must depend on circumstances, of which the purchaser is the only proper judge. The best kitchen range for ordinary use consists of a boiler which runs along the back and one side of the fire. This is filled by means of an oval aperture in its cover. The aperture is covered with a lid, consisting of a heavy plate of cast metal having a projection on its under surface, fitting into a groove running along the margin, and the groove being filled with water by means of the condensed steam, prevents the steam from escaping, and acts also as a safety-valve.

The boiler is usually filled by hand, but when it is of large size it is sometimes supplied by pipes from the cistern. On the opposite side of the grate is an oven, which may be partly heated from the ordinary fire, but is likewise furnished with a small grate under it, which makes it available for baking meat and pastry. The grate itself is fitted up with a partition of iron, capable of being moved by concealed rackwork and a key, so as to enlarge or diminish the fire in the grate, as may be requisite. This partition carries on it a revolving trivet, by means of which a kettle or saucepan may be placed over the fire. The upper horizontal bar of the grate is made to fold down, for the double purpose of holding a pot or saucepan and of diminishing the height of the fire (as the partition already adverted to diminishes the breadth of the fire); beneath the fireplace is an iron shelf or drawer, which, being pulled out, can support the dripping-pan, or afford room for plates and dishes which require to be kept hot.

The dimensions of this kitchen range must depend on the size of the fireplace; but from its completeness it will be found well adapted to its purpose, and it can, by the lessening or increasing of the fire, be made suitable either to a small or a large household.

Kitchen Boilers.—These are very apt, in a longer or shorter time—according to the character of the water used—to become incrusted with a stony deposit. This substance is a non-conductor of heat, and at length becomes so thick as materially to interfere with the process of heating the water in the boiler, and even to cause the iron side next the fire to burn through. The effectual cure for this inconvenience is to remove the lid of the boiler, and have the incrustation cut off with a chisel. In some cases it is requisite to do this every six months.

Best Kind of Fenders and Fire-irons.—The best fenders are low, permitting the free radiation of heat. Bronze fenders are to be preferred for the dining-room, parlour, and bedrooms; a fender of polished steel, with brass and gilt ornaments, is the most suitable for the drawing-room. In purchasing fire-irons, it is better to select those of a small size; the twisted pattern is the most ornamental. Fire-irons ought always to be kept bright. To prevent rust during the summer months, fire-irons should be rubbed with Florence oil, and wrapped up in brown paper when laid aside in the summer.

How to Choose Carpets.

—The carpet ought to assimilate with the style of the paperhangings, but the quality of the material must depend on the capability of the purchaser's pocket. In carpets, as in many other things, the dearest articles are generally the cheapest in the end. In illustration of this we may state that the carpet in our dining-room cost 5s. 6d. a yard, and although it has been in daily use for four years it looks as well as ever. For dining and drawing rooms Brussels carpets are the best. If the rooms are small choose small patterns with few colours, or of a pattern formed of shades of the same colour as the ground, such as a green carpet with mosses or small ferns in various shades of green, or a carpet with an indistinct pattern of ribbons or arabesques of a small size. When there is nothing very decided to attract the eye, the defects

of wear are not so obvious. Stair carpets are also best of Brussels make; crimson wears longest; they must be of a pattern that will admit of being turned upside down, as it is a good plan frequently to change the position of the carpet, that the edge of each step may not always come in the same spot, which would soon wear the fabric. For bedrooms, if Brussels carpet is too expensive, Kidderminster comes next. A small gay pattern of crimsons or oak colours wears best; avoid blues or lilacs or shades of stone colour: the two former fade quickly, and the latter always looks dirty.

Best Way to Lay Carpets.—Cover the floor with thick brown paper, which is sold in large rolls for the purpose; have the carpet properly fitted, and, on the binding of the edges, sew at regular distances small brass rings in such a manner that when the carpet is laid they will not appear beyond the edges. Round the sides of the room drive medium-sized brass-headed nails, at the same distances from each other as the rings are sewed on the carpet; when ready, begin at the top of the room and hook the rings over the brass-headed nails, which must be driven into the floor far enough to admit of the rings catching a firm hold. When the top is hooked on, stretch the carpet to the opposite side and hook *it* on, then fasten the sides in like manner. This is much less troublesome and is more economical than nailing down carpets.

Best Crumb-cloths.—Every dining-room should have a good-sized crumb-cloth under the dining-table. Some people prefer these of gay coloured woollen material, or of green or dun coloured baize, bound with scarlet or crimson braid. They look very well at first and keep clean a long time, but our experience has been that in a very few weeks they act as filters, through which the dust penetrates to the surface of the carpet, and remains there totally unaffected by the sweeping-brush; being each day ground deeper into the carpet, which becomes more worn out when the crumb-cloth is removed than if there had been none at all. Linen crumb-cloths have not this defect; they are so thick that the dust cannot penetrate them, and it is easily removed from their smooth surface. But they also have their faults; they soon soil, and when washed, the colour fades each time until they are nearly bleached white; but even then they still resist the passage of dust through their substance. They should be fastened down with flat brass-headed tacks made for the purpose, which are sold at any ironmonger's. These linen cloths are also made in narrow widths for covering stair carpets.

To Choose a Sideboard and Chiffonier.—The sideboard must be adapted to the size of the apartment, and is usually constructed of mahogany or oak. Pedestal sideboards, with shelves and drawers on each side, enclosed by doors, are the most convenient and elegant. The chiffonier is the best substitute for the sideboard in a small room. The best chiffoniers are adorned with mirrors and carved ornaments, and ought to contain a shelf for the reception of books.

Window Blinds.—For reception-rooms use Venetian blinds, which are extremely elegant and very durable; the favourite colours are green and a light buff. White calico blinds impart a cold aspect, and soon become dingy. Blinds of buff union cloth are appropriate for bedrooms, but are not unsuitable for reception-rooms, where this species of blind is preferred.

Window Curtains.—Window curtains are alike useful and ornamental. They ought to be chosen of a colour harmonizing with the carpet, paperhangings, and other drapery of the apartment. As a rule, red or green curtains will blend pleasantly with ordinary drapery. Window curtains are composed of satin, silk, rep, damask, moreen, calico, and other fabrics. Rep is very durable, but damask, which may be periodically refreshed by the dyer, is the most economical and useful. Net and muslin curtains should be substituted or added during the summer months. Top

valances have been dispensed with as collecting dust and obscuring the light; and the curtains are now suspended by large rings on brass or mahogany rods, having ornamental terminals. Window curtains are seldom drawn, their principal use being to conceal the window-shutters, intercept draughts from the window-sashes, and impart a comfortable aspect to the apartment.

Choice of a Husband.—As few ladies are privileged to initiate proposals in reference to spouses, directions may only be given with respect to the acceptance of *offers*. Do not encourage the advances of a gentleman who is believed to have jilted a lady; you owe this to your sex and to society. Never believe any one whose protestations of love are intense at first sight; you may better judge the sentiments of the man who loves you by his manner than by his words. Should a gentleman select you for attentions in preference to others, you are justified in recognising his kindly disposition; with a little encouragement he is likely to become your lover. Do not coldly reject the advances of any respectable person who honours you with his proposals; the timid suitor may prove a most worthy one, and anyhow you owe an acknowledgment of courtesy to all who indicate towards you respect, or friendship, or affection. Your good sense will teach you to prevent any one whom you do not intend to marry prosecuting his advances so far as to necessitate your giving him a repulse. If a handsome present is sent you by a gentleman whom you cannot accept as a lover, return it at once, with a frank expression of your appreciation, accompanied by a regret that you cannot retain so valuable a gift. In general you may look with favour on those gentlemen whom your papa invites frequently to his table, and mamma rejoices to introduce to her evening parties. If a suitor remains long at his wine, and joins the ladies with a flushed cheek, or is understood to be fast in his habits, reject his offers, and on no account be entrapped by his professions of reformation. He is not a hopeful lover whose tastes even verge on dissipation. His habits may improve, but do not stake your happiness upon the chance. Do not despise a lover because he is poor, —but if he is poor and lacks application, he will not suit you as a husband. "I propose to marry your daughter," said a young medical practitioner to a citizen who had amassed a fortune by industry. "Marry my daughter, sir? what have you got to keep her with?" "My lancet only," said the young physician, "but I mean to use it." "You shall have her," said the father, struck by the young man's expression of decision.

Let our young lady readers attend to these parting hints. 1. Let your accepted lover be some years your senior; you will respect him all the more hereafter. 2. Do not marry a vulgar rich man; he will not elevate you much in the social world, and any little advantage in this way will be more than negatived by your having to endure manners which are unpleasant to you. 3. Break off an engagement with a suitor who proves of fitful humours—cheerful to-day, and moody or morose to-morrow. How could you spend a lifetime with one of moods so variable? These are too often premonitory of chronic ailment, some disease of the brain.

Choice of a Wife.—Marriage is the most important step in life. An imprudent union is the cause of life-long misery, while a judicious alliance is the greatest of temporal blessings. He who marries rashly is a fool. Early marriages are to be recommended where the parents of both parties are satisfied, where there are proper means of support, and where the young lady is of prudent and economical habits. As a rule, a man under twenty-one should not venture upon matrimony, and no time has been lost should he not marry till thirty. In choosing a wife, every man should be guided by such counsels as these:—1. Remark the lady's temper. No extent of accomplishments will compensate for the lack of amiability. A lady who answers her mother petulantly

will prove a thorn in her husband's pillow. If she quarrels with her companions at school she will certainly scold her servants and vex her children. If she is susceptible of slights before marriage, she will after it be liable to jealous humours and other unpleasant freaks. 2. Beware of flirts. A girl who bids for admiration, and has smiles for every one, should be met upon her own terms. Marriage with the heartless is not to be thought of. 3. Never dream of marriage with one of extravagant habits. A clergyman bent on marriage dined with a friend who possessed three marriageable daughters. Before dinner he had been at a loss as to which of the young ladies he should propose to. Towards the close of the meal cheese was produced, and each of the three sisters took a portion. Before eating, the first pared her morsel, the second scraped hers, and the third took the cheese just as it was. The visitor was no longer at a loss; he proposed to the lady who, cleanly without being extravagant, scraped her cheese. Let every suitor carefully remark as to his admired one's views concerning domestic expenses and personal attire; if in the parental home she is heedless of outlay, he may be satisfied that her profusion will be boundless when she is admitted into her own. 4. The gentlewoman who exhibits sordid inclinations is unsuitable as a wife; she would introduce meanness at your family hearth; your friends would not invite her to their homes; and in a miserable parsimony you would be compelled to drag out the span of life. 5. If the object of your affections has a wise father and a discreet mother, you may make your proposals with full confidence that, should your suit prevail, your future partner will be "a crown to her husband."

To Clean Marble Chimney-pieces.—A gill of soap lees, half a pint of bullock's gall, thickened with pipeclay or lime to the consistence of cream, laid on thickly with a brush, and left for some hours or days. It will easily wash off.

Best Condiments: an Economical Council.—Hundreds of thousands of people have read the "Dialogue between the Dutch Oven, Saucepan, Spit, Gridiron, and Frying-pan," in which those worthy members of domestic service fell to abusing one another, recriminating such defects as each could allege against his fellow-servant. And many housewives must have gathered useful hints from the perusal of that dialogue, and turned to practical account various suggestions disclosed by an imaginary but amusing vituperation. We have it on the authority of "Our Special Kitchen Commissioner," that a similar contention took place between the members of the Condimental Family, in which each claimed superiority over his neighbour.

Cayenne Pepper led off with a red-hot attack upon his humbler brethren, Black and White, denouncing the first as dirty and unsightly; and ridiculing the other as insipid, and "very like a dustman."

Black Pepper retorted upon Cayenne that he was too violent and hot-headed to be admitted into good society; and

White Pepper made grave insinuations against the purity of Cayenne, charging him with being an adulterated compound of red-lead, mahogany sawdust, and cochineal.

Mustard displayed a friendly feeling towards the humbler Peppers, but declared that they, like Cayenne, were foreigners; said that if they confined themselves to the tropical countries of their birth, their absence from temperate regions would never be regretted; and remarked that he considered himself quite capable of watching over the stomachic welfare of the inhabitants of temperate zones.

This attack upon foreigners roused Cinnamon, whose tall and withered form rose conspicuously among the group; and he possibly might have obtained a respectful hearing, had not Ginger, Mace, and Cloves demanded to speak at the same moment; while Nutmeg made such a grating noise upon the table, that the debate became

quite unintelligible—in fact, a sort of Babylonian all-spice.

The housewife's attention (the same matronly lady who took notes of the "Dialogue between the Cooking Utensils") was called to the disturbance by a violent fit of sneezing that overcame her, caused by commotion among the irritated and irritating disputants. Recovering from this, she resolved to listen attentively and report the proceedings.

Ginger managed to force a hearing against a strong resistance; in faet, he was so tough in the grain, that he would not give way, but managed to get through a very florid peroration, in whieh he boasted of being the father of ginger beer (derisive cries of "pop!"), gingerbread, and wine and cakes in a variety of forms. He concluded his oration by quoting in his favour a passage from the highest poetical authority, Shakspeare, who had written, "An I had but one penny in the world, thou shouldst have it to buy *gingerbread!*"

But the excitement which this address occasioned was nothing to the outburst of derision when modest Salt rose to represent his elaims. The tropical representatives were so contemptuously inclined, that they filled the room with aromatic odours, with the same feeling, perhaps, that induces a eonceited fop to waft his perfumed handkerchief when compelled to sit by the side of a poorer brother.

Salt, looking pale as snow, but with eyes glistening like erystals, ventured to say that he was not only the most English, but the most universal, necessary, and therefore more widely diffused than any other of the Condimental Family.

Here Nutmeg interrupted, with the ironical remarks that while himself, Cloves, Cinnamon, and the Peppers were born upon tropical trees, and ripened by unclouded suns, miserable Salt had been forced into mines and caves, and that the Sea had been ever since the creation trying to wash him out of existence.

Salt replied, with modest dignity, that if the mighty Sea had been for countless ages endeavouring to effect his extermination, the attempt had utterly failed. He was as powerful, as universal to-day, as when the Holy Voice said, "Let there be light." (Sensation.) The Sea was, in fact, his carrier to every shore; he did not allude to ships—the Sea bore him in her bosom—and the Sun welcomed him, and gave him a warm reception upon every strand. He eould go back antecedent to Shakspeare, and quote from Holy Writ these memorable words: "If the *salt* has lost its savour, wherewith shall it be salted?" But he could quote Shakspeare also, and say, "Is not diseourse, manhood, learning, gentleness, virtue, and liberality the spice and *salt* that season a man?"

Hereupon arose a terrible outcry, the Spices reminding the speaker that *they* were embodied in the same commendation, and that they stood first in the poet's enumeration.

At this point the housewife interfered, believing that she had learned enough of the virtues or failings of the disputants to estimate their utilities, and to bring about an amicable settlement. She had arrived at the conclusion that all Condiments have their respective worth, and that nature in many ways indicates the value of their qualities. The properties whieh are the essence of Condiments are largely diffused throughout the vegetable world; some plants store it in the seed, as Pepper and Nutmeg; some in the leaves and stems, as Balm, Mint, Rosemary, and Lavender; some in the bark, as Cinnamon; others throughout the whole structure, as Parsley and Celery; some equally in the root and seeds, as Ginger; and some in the leaves and seeds, as Mustard. Man's life is for the most part artificial, and he seeks by stimulants to aid the overtaxed functions of his body. Perhaps the most oppressed of these is that of digestion, which, when weakened, may be aroused by stimulating aids that either make the food more grateful or exercise beneficial influence upon the stomach. But the too indulgent use of Condiments, especially of Spiees and

hot Peppers, frequently leads the gourmand to excess,—

"Till, his relish grown callous almost to disease,
Who peppers the highest is surest to please."

The result of the debate convinced the attentive housewife that the most useful, healthful, and therefore the best Condiment is SALT. That it is the only indispensable one—it exists in the milk formed by nature for the young, and is needed at all subsequent periods of life. It is also essential to most if not all inferior animals.

For reasons herein pronounced our good and observant housewife *invented the* CRUET STAND, a sort of Lilliputian palace, in which she apportioned a separate compartment to each of the more ambitious condimental aspirants. To Cayenne Pepper she assigned a place with a diminutive silver spoonette, that he might not too freely diffuse his fiery nature; to Black and White Peppers she allotted two coronets, from which, when shaken, their milder benefactions might be freely or sparingly sprinkled, according to desire; to Mustard she allotted a moveable silver lid and an attendant ladle, that he might be dealt out at discretion; while (as in the world there are more humble places than palaces) she decreed that upon each table "SALT" should be provided with four separate "cells," that his services might be always ready for the good of mankind. For the Aromatic Condiments she designed a "Spice Box," divided into compartments, all under lock and key, herself taking charge of the latter, and determining to use it only upon rare and festive occasions.

Best and most Economical Sauce. — The following receipt is communicated by a lady who has had a long and varied experience in compounding sauces. If the instructions are literally followed, the sauce will be found not only more piquant and agreeable than most sauces in use, but it can be produced *at one-fourth* of their cost. The best sauce for fish, game, or soups is made without one drop of water. To one pint of the strained juice of baked tomatoes add three large baked apples and four large baked onions well bruised, a pint and a half of good vinegar, half a pint of walnut vinegar, three quarters of a pint of mushroom catsup, half a pint of onion vinegar, two nutmegs grated, half a teaspoonful of cayenne, two teaspoonfuls of salt, two tablespoonfuls of ground mustard, two tablespoonfuls of curry powder, three tablespoonfuls of moist sugar, two tablespoonfuls of anchovy sauce, one green capsicum, chopped fine, or a tablespoonful of capsicum powder, one tablespoonful of best white starch to thicken the mixture, two large pieces of whole ginger *bruised*, and twelve cloves. Put all the liquids with the baked apples, onions, cloves, and ginger into a saucepan, and when the mixture boils add to it the other ingredients, which should have been previously well mixed up with a part of the vinegar. Let the whole boil gently for half an hour, stirring it carefully all the time, then beat it through a hair sieve; bottle when cold and cork securely; if no water be used it will keep for many years.

The Best Winter Hotch-potch. — This receipt has been kindly sent to us by the landlady of one of the first hotels in Scotland, where this most savoury dish is an immense favourite. In Scotland, winter hotch-potch is usually made with a singed sheep's head and feet, which make an excellent stock. Boil the head for three hours and the feet for four hours. In England a sheep's head and neck are the best to use. Boil these together for half an hour, take out the neck, cut off a few of the best chops from it and lay them aside; put the remainder back into the stock-pot with the head, and boil till all the meat is off the bones, then strain the whole through a colander. Take one pound of old green peas which have been steeped in water the night before, boil them in a small part of the broth for two hours and a half, cut into small pieces a large turnip, two carrots, four leeks, a little parsley, grate one carrot, and add some pepper

and salt and a small bunch of sweet herbs; put these vegetables, with the peas, into the broth, boil all together for two hours, warm the chops in the broth, and serve.

Oyster Soup. — Take fifty oysters and the liquor from them; make a stock as follows:—A small knuckle of veal, a small piece of lean ham or a ham bone, four onions, two teaspoonfuls of white pepper, a quarter-ounce of mace, three anchovies chopped fine, three tablespoonsful of catsup with half the oysters, all their beards and liquor, and four quarts of water. Boil all together for five hours very gently till they make a strong gravy, then strain, and clear it of all fat, thicken it with two ounces of butter rolled in flour, and a pint of good cream, put in the remainder of the oysters freed from the beards, but do not let the soup boil after the cream is added.

New Mode of Cooking Soles with White Sauce. —Take two moderate-sized soles, which have been filleted by the fishmonger, cross over each other the small ends of the fillets and fasten them with a wooden or wire skewer, put them into boiling water and boil for ten minutes. Drain the liquor from a dozen of oysters, and with it make a good white sauce; when ready add to it the oysters, one dozen pickled mushrooms, a pickled capsicum, cut into pieces, and give the whole *one* boil; make a small mound of mashed potatoes in the centre of a side dish, lay the pieces of fish (having taken out the skewers) round it and pour the sauce over; serve with sippets of toast.

Beefsteak Rolls.—Cut nice small thin steaks, fry them slightly, make a stuffing as if for roast veal or turkey, roll up the steaks, putting the stuffing inside each roll, skewer or tie them neatly, stew them in a rich brown gravy for twenty minutes, and serve.

Ham Toast: A Nice Dish for Supper.—Toast small slices of bread half an inch thick, grate or mince some lean ham, mix it with the yolk of an egg and some cream, season with nutmeg, warm and spread the meat over the toast, brush yolk of egg over the top, and brown in a Dutch oven before serving.

Best Way to use up Cold Veal. — Take some of the underdone part of roast veal, cut or mince it into small pieces, with about one-third as much cold ham or tongue, cut four hard-boiled eggs into rings, moderately thick, lay them on the bottom and round the sides of a pudding-shape, fill the shape three parts full of the veal and ham lightly laid in, make a jelly of the bones and outside pieces of the veal, season it with pepper, mace, lemon peel, and a little mushroom catsup, strain it into the shape, but do not fill it higher than the meat; put the shape into an oven for half an hour, let it stand till quite cold, when it will turn out.

A Delicious Omelette.— Beat separately the yolks and whites of four fresh eggs, to the yolks add as much powdered white sugar as will sweeten it, and a small dessertspoonful of corn flour, very smoothly blended in a spoonful of cream or good milk. Beat the whites to a stiff froth, add the flour to the yolks and gently stir in the whites, taking care to break the froth as little as possible; pour the whole into a clean frying-pan from which the butter has been drained; two or three minutes over a clear fire is enough to cook the under side; hold the pan to the fire till the upper side looks firm; spread raspberry or strawberry jam over one half, turn the other side over it, and serve immediately.

Beef Tea.—One pound of *lean* beef, scraped or cut very fine, put to it a pint and a half of water; then toast a good-sized piece of bread, and put it with the meat and liquid into an earthen jar. Stew it in a hot oven for forty minutes. The beef should be a fine steak, and *all* the fat and skin carefully taken off before scraping it.

Chicken Jelly. — Take one *large* chicken, put it into a saucepan with two quarts of water, one large onion, one blade of mace, one teaspoonful of

salt; boil all till reduced to three pints, then strain it, and let it stand till the next day; then take off the fat very *clean*, take the whites of six eggs, half an ounce of isinglass, the juice of one or two lemons, beat them well altogether, and boil it till the scum rises to the top. Let it stand a few minutes, then strain it through a jelly-bag. The above is a *very* strengthening preparation, and may be taken cold or hot, as best suits the patient's taste.

A Great Restorative.—Bake two calves' feet in two pints of water and two pints of new milk in a jar *closely covered* for three hours and a half; when cold remove all the fat and add a little sugar, if liked. Take a large teacupful the first thing in the morning and the last at night.

Another Excellent Restorative for invalids is Barley Cream. Two pounds of lean veal, a quarter of a pound of pearl barley boiled in one quart of water till it will go through a sieve. It should be about the consistence of cream; add a little salt, and take it as a broth.

Egg Mixture for an Invalid. — The following recipe is highly approved of by the medical faculty, as being extremely suitable for persons of irritable stomach. It is at once stimulating and nutritious, and will be retained when ordinary articles of food are rejected. Break into a tumbler a raw egg, add a small teaspoonful of soft sugar or finely powdered white sugar, then add about half a wineglassful of brandy, whisky, rum, or sherry—according to taste—mixed with an equal quantity of water or milk; place over the top of the tumbler half a sheet of note-paper and press it with your hand round the outside of the tumbler so as to form a cap; then cover the paper with a single fold of a towel or napkin, drawing it tightly under the bottom of the tumbler, and twisting it so as to press the paper closely to the rim of the glass and prevent the contents being spilt; shake violently for two to three minutes; remove the towel and paper; grate a little nutmeg on top, and drink.

Australian Preserved Meat. — Within the last twelve months an extraordinary progress has been made in the importation of Australian meat. The Australian bullock or sheep is slaughtered, skinned, and freed from offal in the usual manner; it is then boned, salted, spiced, and rolled into a compact mass, absurdly like a bolster, and varying from ten to fifty pounds in weight. The "bolster" is enveloped in a sheet of white linen, coated with tallow, which covering excludes the atmospheric air. A sufficient number of the fat-encased meat "bolsters" are then arranged in a cask, into which is run as much tallow as will fill it up; it is then shipped for London. On arrival the head of the cask is taken off, and the solid crust of tallow protecting the "bolsters" broken up; the meat rolls are then taken out. The mutton is sold at 5½d. per pound, and the beef at 6d., both without bone. Tins of Australian beef and mutton are sold at the rate of six pounds for 3s. 3d., or 6½d. per pound; which will compare with English beef or mutton at 10d. or 11d. The Australian hams, containing no bone, having only two or three inches of bone at the shank, sell at 5½d. Sheep's tongues, 1s. 6d. per dozen. Sausages, of mutton or beef, 6d. per pound. Solid essence of beef, 8s. per pound, or 4d. per cake, equal to thirty times its weight of fresh meat. About 90,000 pounds of Australian meat are consumed weekly in Great Britain, and the demand is on the increase.

How to Dine for a Penny.—At the Australian Meat Agency's Central Depôt, 31, Norton Folgate, E., upwards of a thousand persons partake daily of a good sound meat dinner at a tariff varying from one penny up to threepence each. For a penny can be had a basin of excellent soup; for twopence a savoury and substantial stew, on a deep plate heaped up. The twopenny stew is more than some men can well dispose of at a sitting. Persons of great appetite only may go as high as threepence, but anything beyond that seems impracticable.

The diet is most nutritious and agreeable, and the meat has not in the least lost its flavour during its transit of 15,000 miles, or five months' voyage. Within the last six months another Australian dining establishment has been opened, at 152, Goswell Road. There, about three hundred mechanics and others dine daily, but a greater number carry their supplies home, that their wives may enjoy these nutritious meals. At the Goswell Road depôt dinners of meat and potatoes may be had for a penny, and sturdy mechanics have certified that the twopenny dinner abundantly satisfies them.

As our readers cannot all visit these cooking places, we give the result of our own experience in cooking the Australian mutton procured from the Goswell Road depôt. Take one pound of mutton, cut it into small pieces, and steep it for half an hour in very hot water; take off the outer skin of the meat and put it into a saucepan, with a good sized carrot and onion cut in slices, and a quarter of a pint of water; let them stew gently till the carrot is nearly done; have ready two turnips and six large potatoes, cut into pieces, half a teaspoonful of pepper and a little salt; stew till the potatoes are done enough. These quantities will make a large dish of stew, and the cost is as follows: One pound of mutton, 5½d., potatoes, 2d., carrot, onion, and turnips, 2d., salt and pepper, ½d.; total, 10d. The dish will be ample for four persons.

Her Majesty the Queen has honoured this cheap dining system with her royal patronage.

Hints to Tea-drinkers.—Avoid high-priced and highly flavoured teas, especially green, as these generally derive their flavour from pernicious ingredients. *All* green tea is more or less injurious; it acts powerfully on the nervous system, and injures the stomach. Good black tea is not only safe, but wholesome; but it should always be taken with a suitable proportion of milk and sugar added to it as correctives.

Best Mode of infusing Tea.—The best teapot is a metal one; it retains heat longer than earthenware. A silver teapot is especially to be recommended, since inferior metals may contain materials of a pernicious character. In proceeding to infuse your tea, scald the teapot first, then insert the tea; half a teaspoonful for each person who is to partake, with an additional spoonful should two persons only be present. Pour in a breakfast cupful of boiling water, and if the water be hard, add a pinch or two of carbonate of soda. Let the teapot rest on the hob or under a thick woollen cover for ten minutes. Add boiling water in proportion to the number of the company. If, owing to the small size of the teapot, you require to add more water, do so after you have half filled the first range of cups. By this method you will contrive to make each cup supplied to the company of equal strength and flavour. If more dry tea is required, moisten it first in a cup before introducing it into the teapot. In order to secure a cup of well-flavoured tea, every housewife should procure black tea from different dealers, and mix it. Tea will best retain its flavour if kept in a tin vessel or wrapped in wool.

Hints to Coffee-drinkers.—Coffee is used at breakfast, after dinner, and also as an evening beverage. To most persons it proves at all times refreshing. When its use is succeeded by heartburn, or other unpleasant symptoms, it should be discontinued. It is of great service to those at sea, and is invaluable in removing a feeling of exhaustion. Those who "waste the midnight oil" may by its use resist a tendency to fall asleep. Those who are desirous of obtaining early and sound sleep should not drink coffee immediately before bedtime. Persons troubled with indigestion should avoid it altogether. In attacks of spasmodic asthma it is useful.

Best Way to make Chocolate.—Chocolate is more nourishing than coffee. It may be prepared thus:—Into a pint of boiling water place a small cake of chocolate, cut into thin

slices; mill it off the fire till it has melted, and then put it on a gentle fire till it nearly boils. It will keep several days. In using, warm with sugar, and add a large tablespoonful of milk when it is poured out. Chocolate should be made very thick, and eaten with dry toast. It is adapted to nervous and delicate persons, but corpulent persons and those liable to inflammatory diseases or apoplexy should not use it. Chocolate made in Florence has long been celebrated. Menier's manufactory, near Paris, also enjoys a high reputation.

Best Way to make Coffee.—Mix the beans of Mocha, Java, and Jamaica coffee in equal quantities. Lay up a supply, which will be improved by keeping. The roasting process should be conducted at home. Orpwood's Roasting Machine is the best; attached to the bars of the grate it roasts half a pound in twelve minutes. The roasted beans should be kept in a flannel bag, and the quantity to be used passed through the grinding machine immediately before infusion. The aroma is thus best preserved. The grecque, a French coffee machine, is one of the best. A quantity of the powder should be placed in it, in the proportion of one to every three cups of the liquid to be made. Platow's Automaton Coffee Urn is an elegant table ornament, and is recommended. In making coffee the powder ought to be used copiously. Weak coffee is very unpalatable. Cream much improves the flavour; when it cannot be had hot milk should be added. Essence of coffee is generally good, and is most convenient when the beverage is required on a short notice.

Cocoa Nibs.—These are the coverings of the cocoa kernel; they may be procured at a low price, and are very suitable for invalids. The nibs or shells should be soaked in water for a night, and then boiled till reduced to half the quantity. They should be mixed with milk. There are various kinds of prepared cocoa, the directions for making which are usually given with the packages. Most persons prefer these to the trouble of preparing it for themselves.

Best Mode of preparing Cocoa.—Cocoa is a light, wholesome, and nutritious beverage. The nuts should be crushed to a powder, and boiled in the same manner as chocolate, in water or milk. The best cocoa is that which is small and dark-coloured. Cocoa is more adapted than is tea for the morning meal, because of its greater power of maintaining the body and supplying the waste occurring during the fast of the preceding night. Like chocolate, it is unsuitable to those who make blood rapidly, or to such as are liable to apoplexy or inflammatory diseases.

Spruce Beer.—Spruce beer is an excellent antiscorbutic, and a wholesome drink in hot weather. The best mode of preparing it is as follows:—Take of the essence of spruce half a pint; bruised pimento and ginger, of each four ounces; water, three gallons. Boil five or ten minutes, then strain and add eleven gallons of warm water, a pint of yeast, and six pints of molasses. Allow the mixture to ferment for twenty-four hours.

Water—its Inherent Properties.—Water is an important ordinary agent, not only for the purposes of life, but for the prevention, relief, and cure of disease. It retains its fluidity at a temperature ranging between 32 and 212 degrees of Fahrenheit's thermometer. Under 32 degrees it assumes a crystallized form, and becomes ice; above 212 degrees it assumes, at the ordinary pressure of the atmosphere, the aëriform character, and is converted into vapour or steam. It possesses great powers as a solvent, and for this reason never occurs in a state of absolute purity, but is generally found containing earthy matters in mechanical suspension, or saline and other substances in chemical solution; but, in general, not in quantities sufficient to impart to it any sensible odour, or to unfit it for the purposes of life. Its natural varieties are comprehended under *Rain water*, *Spring water*, and *River water*.

How to Test and Purify Water.—Mechanical impurities in water are removed only by filtration; chemical impurities cannot be removed in this manner. If lime is supposed to be present in water, the best test is to mix with it a small quantity of oxalic acid in a small vessel; lime, if present, will be revealed in a white precipitate. Carbonate of iron is best detected by the tincture of galls, which produces a black precipitate. If the penknife, dipped in water, assumes a yellowish coating, copper is present. The best method of detecting the presence of vegetable and animal matter is by dropping into it a small quantity of sulphuric acid; the water becomes black.

To Purify Water.—Add twenty drops of sulphuric acid to a gallon of water. An ounce of powdered alum in a hogshead of putrid water will, in the course of a few hours, precipitate the deleterious matter, and make it fit for use.

Rain, Spring, and River Water.—Rain water, collected as it falls, is the purest natural water, and of the least specific gravity; but when collected in towns, or from the roofs of houses, it is found to contain sulphate of lime, soot, and other impurities; it ought, therefore, to be boiled and strained previous to internal use.

Spring Water.—Spring water is also distinguished by the term "hard water," a quality arising from its containing various earthy salts, and especially carbonate of lime. These ingredients render it incapable of completely dissolving soap, which, after being used in washing, is seen to float on the surface of the water in minute particles. The best method of freeing hard water from its earthy salts is, first to boil it, and after it has cooled to drop into it a little carbonate of soda, or carbonate of lime, and then to filter it. The purest spring water in Great Britain is found at Malvern and Matlock, and at St. Winifred's Well in Flintshire. These waters possess great celebrity in curing cutaneous ailments and affections of the kidneys, consequent on the diluting effects resulting from their remarkable purity.

River Water.—River water, when the stream is rapid and runs over a pebbly or silicious channel, is as pure as the softest spring water; but when the current is slow and the bed clayey, it approaches nearer to the character of well water, and frequently contains putrefied animal and vegetable matter, as is known to be the case with the water of lakes and marshes.

Best Corkscrews. — The ordinary screw with which the cork is extracted by a direct pull is the most common because the simplest, but it is not the best. It is sometimes difficult even for a strong arm to pull the cork from a bottle by the exertion of direct force, and cases have occurred in which severe and even fatal wounds have been inflicted by the sudden fracture of the neck of the bottle. An accident of this kind occurred lately, when a piece of the neck of the bottle cut a deep wound in the thigh of the operator, severing the femoral artery and producing death. One of the best screws is that patented by Lund. In this ingenious implement the screw, after being fixed in the cork, is pulled up by means of a lever, the end of which is inserted into an orifice in the handle of the screw. Twigg's New Patent Champion Screw is also a favourite. When the screw has penetrated the cork a clutch-box is brought into action, and draws the cork with two turns of the handle.

Best Substitute for Wax on Corks.—Instead of bottle wax, which crumbles on the insertion of the corkscrew, and the particles of which may fall into the liquor, cover the cork with a solution of gelatine, dissolved in glycerine by the application of heat.

Best Way to Loosen a Tight Stopper. — Apply hot water to the neck of the bottle, which will expand, while the stopper retains its former temperature and becomes loose. In the case of a phial containing smelling salts, dip the neck and stopper in vinegar or a solution of

citric acid. Next place the phial in a vessel of hot water, when the stopper will readily be removed.

Best Coolers for Water or Wine.—Liquids in the act of assuming an aëriform character abstract heat from all bodies in contact with them, for the same reason that all solids do so when changing into liquids. If you pour a little spirits into the palm of the hand, and blow upon it, a great degree of cold will immediately be felt, owing to the spirits turning into vapour, which extracts heat from the skin. On this principle of evaporation an excellent and simple mode of cooling water or wine may be adopted. Take a bottle of wine or water, surround it with a piece of linen dipped in water, and place it in a draught. It will be found that the liquid in the bottle will be reduced to a temperature much below that of the surrounding air, having parted with its caloric to the vapour formed by the evaporation of the water in the cloth.

Best Way of making Scotch or Irish Whisky Punch.—Half fill a tumbler with boiling water, but pour cautiously, to prevent the too sudden expansion of the glass. Let the water remain a few moments, to heat the tumbler thoroughly, and then empty it. Put loaf sugar, according to taste, in the heated tumbler, with three or four spoonfuls of boiling water. When the sugar is melted pour in half a wineglass of whisky, and stir with a spoon or ladle. Add as much water as you desire, and then put in the other half-glass of whisky. Mix thoroughly and take in small quantities, as it is a beverage and not a drink. Whisky having now become a general favourite in England, and being, when taken moderately, the safest of stimulants, we may state for the information of our readers, that it can be had at 18s. per gallon in Ireland and 17s. in Scotland, carriage free, if a few gallons are taken at a time. The price in London is £1 2s. Scotch, and £1 3s. Irish. It is a mistake to fancy that the whisky of any single distillery used alone is good. The best are those called "blended whiskies," namely, the mixture of whiskies manufactured by four or five different makers.

A Few Words on Sleep.—The importance of sleep is attested by the periodical demand which nature makes for it, the physical impossibility of long resisting it, and the universality as well as the imperious character of those natural laws in which the demand originates. But there are not wanting several considerations on this subject highly worthy our careful attention. There can be no doubt, from our own experience, as well as from the discoveries of physiology, that sleep when sound is accompanied by an entire remission of the functions of the brain and nervous system; that during this period of repose those energies exhausted by the activity of the preceding hours are restored and strengthened and recover their tone; that the constitution itself is repaired; that the process of nourishment goes on more perfectly than during the time of wakefulness, that the insensible perspiration is greater and more salutary, and that all the mental faculties share in the restorative influences of which the body itself is the subject. Lord Mansfield's advice to "cultivate sleep" is therefore of great importance, and merits the utmost attention, especially from those who must undergo excessive mental or corporeal exertion.

Proper Duration of Sleep.—Infants and children require most sleep, aged people the least. In the former case nature is busily occupied in developing the framework and faculties of the future man or woman; in the latter the processes of nourishment and development are much less required, and as the powers and energies of mental and corporeal vitality are diminished there is less to recruit. As a general rule applicable to persons in maturity, the number of hours necessary for sleep varies from six to eight hours. Many people in vigorous health find six hours sufficient, while those who are weak or invalids generally require eight hours.

Even those who are weak very rarely require more than nine hours of sleep; a longer indulgence is invariably injurious. Half-past ten is the best time for retiring to rest at night, and six or half-past six the most suitable time for rising in the morning.

To Procure Comfortable Sleep.—For this purpose let sufficient exercise of body and mind be taken during the day, and as far as possible let everything be avoided which is likely to disturb the functions of the body or unduly stimulate the moral and intellectual powers at the period dedicated to rest. The food taken in the evening ought to be moderate in quantity and easily digested, the bedchamber thoroughly ventilated, and either the door of the apartment or part of the window left open during the night. Let anxiety be laid aside, intellectual labour abandoned, and the conscience be void of offence.

The New Bankruptcy Law.—The new Bankruptcy Act (32 & 33 Vict., c. 71) came into operation on the 1st of January, 1870. The Bankruptcy Court, consisting of commissioners and others, is abolished, and jurisdiction assigned to a London Court with one chief judge, and to county courts. Persons capable of making contracts may become bankrupts, including peers, members of the House of Commons, and married women. Members of Parliament adjudged bankrupts are for one year incapable of sitting or voting in the House. Partnerships registered under "The Companies Act, 1862," or the individual members, or a farmer, grazier, or labourer, cannot be made bankrupt. No person can present a petition to make himself a bankrupt, but any single creditor may whose debt (unsecured) amounts to £50, or several creditors whose aggregate unsecured debts amount to £50. Acts of bankruptcy are constituted when a debtor assigns property to his creditors, has made a fraudulent transfer of property, has left England to defeat his creditors, has been outlawed, or has filed a declaration of insolvency; or, further, if, being a trader, an execution for not less than £50 has been levied on his goods, or if the petitioning creditor has served the debtor with "a debtor's summons" for not less than £50 without obtaining payment. Bankruptcy is to be advertised in the *London Gazette* and locally. At a general meeting of creditors, held soon after the debtor is adjudicated bankrupt, the creditors must elect a trustee and other fit persons, not exceeding five, as a committee of inspection. At this general meeting votes of properly qualified creditors may be given personally or by proxy. The bankrupt must be publicly examined on a day fixed by the court. The trustee in the bankrupt's estate must declare a dividend within six months, or justify a longer delay at a public meeting of creditors. The bankrupt will be entitled to his discharge if a dividend of 10s. in the pound has been paid from his estate, or if the creditors pass "a special resolution" that his misfortune was involuntarily incurred. Where a discharge is not granted, the bankrupt is to be unmolested for three years, but at the expiry of that period, if he has not during the interval paid 10s. in the pound, his property, on the application of the creditors, may be sequestrated. The settlement of property by a trader on his wife or children is void if he should become bankrupt within two years after the date of said settlement; and it is void within two years after date of settlement unless claimants can prove that at the time of settlement the debtor was able to meet his obligations. A debtor may summon a meeting of his creditors, and they may declare that his affairs are to be liquidated by arrangement, or the creditors of a debtor may resolve, by a majority in number and three-fourths in value, that a composition shall be accepted. By the Debtors Act (32 & 33 Vict., c. 62) imprisonment for debt is abolished; but imprisonment is inflicted as a punishment when there have been fraudulent practices in contracting debts. Debtors who have the means and refuse to pay their creditors are liable to imprisonment, and any ad-

judged bankrupt who fails in delivering up to his trustee all the property in his custody may be imprisoned for two years with hard labour. Any creditor making a false claim on a bankrupt's estate with intent to defraud, may be punished with a year's imprisonment with hard labour. Dividends in bankruptcy remaining unclaimed for five years are the property of the Crown, and will be disposed of by the Commissioners of the Treasury.

A Few Words on Rats.—WHERE RATS ARE USEFUL.—The rat is not to be regarded under all circumstances as a nuisance and an enemy. His natural home is in sewers and drains, in which he is the best of scavengers. He selects as food putrescent animal and vegetable matter, which, if allowed to accumulate, would cause pestilence and disease.

HOW TO DESTROY THEM WHEN NOXIOUS.—The use of arsenic has been abandoned in the destruction of vermin, as it was attended with serious risks. The common rat-trap is occasionally serviceable. Phosphoretted dough inserted in the holes has proved alike attractive and destructive to the intruders. Charcoal and brimstone fumes have been adopted successfully in barns and outhouses. A recipe which obtains in popular household books is as follows:—Take oil of amber and ox gall in equal parts; add to them oatmeal or flour sufficient to form a paste, which divide into small balls and place in the middle of the infested chamber. Surround the balls with vessels of water. The smell of the oil will attract the rats; they will devour the balls, and becoming intensely thirsty will drink the water till they die on the spot. A writer in the *Builder* remarks that squills (*Scylla maritima*), the root of which is much used in medicine, is a powerful poison for rats. The way of preparing it is the following:—"One of the bulbs is cut into slices and bruised, then done in a pan with fat, which is afterwards strained and poured into plates, to be placed in cellars and other places. To prevent dogs and poultry from eating of this poisonous compound, it may be put into a wooden box, about eighteen inches long, and having a hole at each end. The rat gets in at one end and goes out at the other, after partaking of the noxious food, which soon kills it." According to Boreaux, the dog's-tongue (*Cynoglossum officinale*), if bruised and placed in the rooms of a house infested with rats, will cause the animals to quit. A toad in the house cellar is said to have the same effect. A rat seized in a trap and singed, and then let loose, will produce alarm among the others, and may lead to their departure. Perhaps the best means of repressing an invasion of rats is to keep a terrier dog on the premises, and to use chloride of lime. Place a vessel filled with it in each infested room, and the uninvited occupants will flee from an odour which is most obnoxious to them.

How to Preserve the Teeth and Gums.—The teeth should be washed night and morning, a moderately small and soft brush being used; after the morning ablution pour on a second tooth-brush, slightly damped, a little of the following lotion, which can be obtained at a chemist's:—

Carbolic acid, 20 drops.
Spirit of wine, 2 drachms.
Distilled water, 6 ounces.

After using this lotion for a short time the gums become firmer and less tender, and impurity of the breath (which is most commonly caused by bad teeth) will be removed. It is a great mistake to use hard tooth-brushes, or to brush the teeth until the gums bleed.

Best Cure for Burns or Scalds.—The best application in cases of burns or scalds is a mixture of one part of carbolic acid to eight of olive oil. Lint or linen rags are to be saturated in the lotion, and spread smoothly over the burned part, which should then be covered with oiled silk or gutta-percha tissue to exclude the air.

The dressing may be left on from two to three days, and should then be re-applied, exposing the burn as short a time as possible to the air.

Rheumatism, Nature and Cause of.—Rheumatism is a diseased condition of the fibrous and muscular tissues, chiefly affecting the larger joints; the heart and diaphragm are also liable to be affected by it. It is a promoting cause of heart disease. The causes of rheumatism are various. Vicissitudes of temperature are the most common; occupying a damp bed for a single night is sufficient to engender the disease. Such persons as blacksmiths, who are exposed to severe changes of temperature, are generally victims to the complaint. Miners and persons employed in smelting-furnaces are often severe sufferers. There is likewise an hereditary tendency to the malady, which a slight cold will develop.

The principal forms of rheumatism are these:—when the joints about the back and loins are affected the complaint is known as *lumbago*. Pains in the hip joints are designated *sciatica*.

An attack of rheumatism is imminent when a stiffness is felt in the joints, combined with a dryness of the skin and a burning thirst. The variety of the complaint of which these signs are the precursors is termed *acute*. The other variety is *chronic* rheumatism. The latter may be described as an aggravated condition of the former, though some persons not only describe them as quite distinct, but introduce a variety between them.

Rheumatism proceeds from a vitiated condition of the blood. An hereditary taint in the circulating fluid may be excited into morbific action by a slight cold, but more commonly the blood becomes vitiated through mal-assimilation and a faulty metamorphosic action. The precise principle of the poison engendered has not yet been fully ascertained. It is generally believed to be lactic acid.

Modes of Treatment.—To eliminate the morbific element from the system, physicians have adopted various remedies. Venesection and the use of calomel are now altogether abandoned. The use of saline aperients, always safe, has occasionally proved successful. The excitement of the nervous system has been allayed by the administration of opium and digitalis. Quinine has been administered with advantage. One of the best of the old remedies is Dover's powder, which, as causing perspiration, may be advantageously used in every case of rheumatism. A writer in the *Journal of Horticulture* prescribes the following:—"Five drops of cajeput oil on a lump of sugar, dissolved in a tumbler of hot water, taken at bedtime and once besides in the day, and persevered in for some days."

In his standard work on rheumatism, Dr. H. W. Fuller states that in many parts of England the sulphur ointment of the *Pharmacopœia* is a favourite remedy among the poor for the cure of rheumatism, whether affecting the joints or other parts of the body, and that he had ascertained by experiment that, applied externally, sulphur often subdued pain which had persisted in spite of all other remedies. To eliminate the noxious acid from the circulating fluid, an eminent physician has recommended that as much bicarbonate of soda as would rest on a sixpence should be taken immediately after meals, dissolved in a wineglassful of cold water. Dr. Fuller prescribes an effervescing citrate of potash draught, with an excess of 40 to 60 grains of bicarbonate of soda or bicarbonate of potash, at two, three, and four hours' interval. An external mode of cure, practised among the humbler classes, is that of passing a moderately heated flat iron, such as those used by laundresses, over the parts affected.

The Best Mustard Plaster.—Take a piece of waste linen, and if crumpled, iron it smooth; or paper will do. Procure a small quantity of black mustard seed, and bruise it to a coarse powder, in a pestle and mortar or otherwise. Spread over the linen a thin solution of gum, and sprinkle the powder equally over it. Dry in a warm place. When wanted, plasters may be cut of any size or

shape; and when applied should be momentarily dipped in tepid water, and tied over the affected part with a bandage. These plasters are more simple, cleanly, and effective than the ordinary mustard poultices.

This recipe is very similar to Rigollot's mustard leaves, which are very convenient to use, and quick in their operation.

The Law of Vaccination.—The Act of Parliament which came into force on the 1st of January, 1868, enacts that parents or guardians are to procure the vaccination of every child within three months after birth, unless the child is not in a fit or proper state for the operation; that parents neglecting to procure vaccination, or failing after vaccination to have the child inspected, may be fined twenty shillings, and that any person practising inoculation with variolous matter, or in any way wilfully producing small-pox in another individual, shall be liable to a month's imprisonment.

Vaccination is usually performed when the child is four to six weeks old. It may be done a few hours after birth if there are cases of small-pox near.

Exercise—its Importance and Uses.—The health of all the parts of the body and the soundness of their structure are inseparably associated with the processes of continual absorption and renovation; and exercise, by sustaining and promoting these, invigorates life and strengthens all our organs, fitting them for the various offices which nature requires. The same remarks are equally applicable to the moral and intellectual powers. By means of exercise, diseases are frequently prevented, and even removed; and it has been justly remarked that if only some of the advantages resulting from it could be obtained by any one medicine, nothing would be held in greater esteem. An immense number and variety of the most distressing maladies have their origin in a sedentary mode of life. To prevent these, or to cure some of them, one of the most effectual means is exercise. It strengthens all the functions of the body, exhilarates the spirits, and imparts tone and vigour to the whole system. PEDESTRIAN EXERCISE is most conducive to health. It promotes the circulation of the blood through the minutest veins and arteries of the system, strengthens the muscles, and promotes the healthful activity of all the functions. EQUESTRIAN EXERCISE is admirably adapted for invalids. Medical men have laid it down that riding is the best means for regaining health, and walking the best for retaining it. GYMNASTICS, such as leaping and fencing, and the various games which belong to this class of exercises—such as bowls, cricket, and those known in Scotland as curling and golf—are all most valuable for imparting strength and buoyancy to the system. FRICTION is of great value. It augments the good effects of more active exertion, and forms an excellent substitute for it. It frequently proves of great value to weak and nervous persons, as well as to those suffering from gouty and rheumatic ailments. It is an admirable promoter of sleep, especially in those who are enfeebled by confinement or literary labour.

Advice on Tobacco and Snuff.—Tobacco contains a large quantity of volatile oil, which is a powerful sedative. It is probably for this reason that the use of tobacco, whether by smoking or otherwise, produces indolence, blunts the appetite, and not unfrequently results in an obstinate form of indigestion. The deleterious qualities of the drug may be perceived from the first attempts to smoke being followed by giddiness, sickness, and depression; and there can be little doubt that, although these effects may not always be perceived when the habit is once acquired, yet gradual injury must be done to the constitution by the continuous effects of the poison, however small the quantity which may be absorbed at one time. At a recent meeting of the Harveian Medical Society, Dr. Drysdale made some remarks on the subject, founded on the observation of about 200 cases of ex-

cessive smoking among the out-patients of the Metropolitan Free Hospital. He stated that all these cases proved that tobacco-smoking was much opposed to nutrition, and that it was consequently one of the most injurious habits which the human race had in recent times contracted. From his own experience, he would say that there were no perfectly healthy persons who smoked. Mr. Curvengen cited the case of a gentleman to whom he was obliged to administer strong coffee and other stimulants in order to arouse him from a state of nervous depression into which he had sunk after prolonged tobacco-smoking.

Hints about Clothing.— All our garments should be soft and pliable, and of such a shape as to be comfortable to the wearer. They should not be warmer than is requisite to preserve the body in a proper temperature. The clothing worn next the skin should be made of substances easily cleaned. Our dress should be adapted to the age and constitution of the individual. Young and robust persons require a smaller quantity than those who are delicate or advanced in years. A variety is requisite to suit the difference of temperature in summer and winter. The temperature varies so often and so suddenly during the first five months of the year, that no great change in the character of our clothing should be made till May or June. LIGHT-COLOURED CLOTHES are cooler in summer, because they reflect a portion of the sun's rays; and they are warmer in winter, because they do not radiate the heat of the body so rapidly as dark-coloured clothing. DARK-COLOURED CLOTHES are warmest in summer, because the darker the cloth, the more perfectly it absorbs the direct heat of the sun. They are, however, colder in winter than light-coloured clothing, proving the rapidity with which they absorb the heat from the body.

A Few Hints on Fern Cases. — The simplest and most easily managed fern cases are those made of earthenware or terra-cotta, either in the shape of an open vase or like a piece cut from the root of a tree, and covered by a bell-glass. These can be obtained of any fern dealer, or at a glass shade warehouse. Fern dealers supply them ready planted with suitable ferns; but as the pleasure of planting the case one's self is only second to the pleasure of watching their almost daily growth, we shall give a few hints of the simplest nature, referring those who wish for further information to "The Fern Garden" of Mr. Shirley Hibberd, whose directions are most explicit as well as comprehensive.

Having procured the case and bell-glass, which should fit rather loosely, and which is best if of common English glass, with a knob at the top, next get from any nursery garden some fern mould, which the gardener will prepare and mix for the purpose. Strew the bottom of the case with potsherds broken to about the size of walnuts; lay over these a thin coat of dried moss and fill in the mould, piling it up in the centre. Take a kettle of boiling water and pour the water steadily into the middle of the mould first, but taking care that all parts of the case are thoroughly wetted by the hot water, which completely destroys all insects and their eggs, as well as fungi, which would afterwards prove troublesome. The mould must be cold before the ferns are planted. If the fern case is intended to remain in a room where there seldom is a fire during the winter, British ferns are the best to fill it with; but if kept in a warm place some hardy foreign species may be added. A window facing the north or north-west is best in summer; ferns do not like the full glare of sunlight. The great error of most amateurs who keep ferns is the idea that they require a quantity of water; the soil must always be damp, but not wet, or the fronds will decay close to the root. Water should be very sparingly given in winter, and very gently poured round the edge of the case; in summer water every day, taking care to sprinkle it so gently as not to wash the earth from the roots or to press down the

delicate fronds. Air sufficient for ventilation can safely be given by taking off the glass each morning and wiping it dry, and then putting it on again, care being taken that no *draught* gets to the ferns while uncovered.

Of British ferns the following do well in a fern case:—The beech fern (*Polypodium phegopteris*), oak fern (*Polypodium dryopteris*), the green spleenwort (*Asplenium viride*), the maidenhair spleenwort (*Asplenium adiantum-nigrum*), the wall spleenwort (*Asplenium trichomanes*), the parsley fern (*Allosorus crispus*), the maidenhair (*Adiantum capillus-Veneris*), the Alpine woodsia (*Woodsia hyperborea*). Most of these can be bought very cheaply at a fern dealer's, or even of those men who collect ferns which they sell about the streets of London. For a moderate-sized case six or eight will be sufficient. For those who wish to mix foreign ferns with our native species, lists are given in "The Fern Garden" already referred to.

Best Method of Curing Chilblains.—The medical press recommends the following mixture:—"Aconite liniment, two drachms; carbolic acid, four drops; collodium *flexile*, four drops. Mix, and apply with a camel-hair pencil every three days."

To cure chilblains, M. Cazenove, of Paris, has lately recommended the following prescriptions:—"Two yolks of fresh eggs, two spoonfuls of oil of almonds, one ounce of rose water, and half a drachm of tincture of benzoin. For chaps of the fingers, M. Cazenove paints them every evening with tincture of aloes from two to four parts, and glycerine thirty parts. In chaps of the lips he employs oxide of zinc one part, cold cream, cacao butter, and oil of almonds, of each fifteen parts."

Oxide of zinc ointment, or a few drops of glycerine, rubbed on the parts affected in the morning and at bedtime will afford relief. In cold weather, persons subject to chilblains or chapped lips should perform their ablutions in tepid water.

Scalds on Children.—The little sufferers should be painted with carron oil with a camel-hair pencil, and immediately put to bed. As children seldom recover from the effects of severe scaldings, nurses ought to be most careful in preventing them from approaching the fireplace. A high wire guard should be placed in front of the nursery grate.

Best Cure for the Earache.—Drop some warm glycerine into the ear by means of a quill, and afterwards introduce a piece of wool. Wool plucked from a blanket is the most suitable; the fibres are elastic, and do not coalesce into a hard pellet as cotton is apt to do.

To Cure Boils.—Every part of the body is liable to these small tumours; they are hard, circumscribed, painful when touched, and suppurating with a core in the centre. Persons of full habit and great vigour are chiefly liable to them, but they frequently occur in those whose constitution is impaired. Some cooling aperient should be given, and a common poultice applied to the boil till it suppurates and breaks, when it should be dressed twice a day with saturnine ointment. The patient's health will be benefited by the use of quinine.

New Mode of Removing Rust.—Some time ago Mr. Le Keux communicated to the Archæological Institute the following recipe:—

"Plunge the article in a bath of diluted hydrochloric (muriatic) acid; say one pint of the acid to one quart of water. Leave it there for twenty-four hours; then take it out and rub well with a scrubbing-brush. The oxide will come off like dirt under the action of soap. Should any still remain, as is likely, in the corroded parts, return the metal to the bath for a few hours more, and repeat the scrubbing. The metal will then present the appearance of dull lead. It must then be well washed in plain water several times, and thoroughly dried before a fire. Lastly, a little rubbing with oil and fine emery powder will restore the polish. Should oil or grease have mingled with the rust,

it will be necessary to remove it by a hot solution of soda before submitting the metal to the acid. This last attacks the rust alone, without injuring the steel; but the washing in plain water is all-important, as, after the process, the metal will absorb oxygen from the atmosphere freely if any trace of the acid be allowed to remain."

The Earth Closet.—Instead of water, dry earth containing alumina is used. The earth acts as an absorbent. This new system, which is likely to be generally adopted, was originated a few years ago by the Rev. Henry Moule.

Dustbins. — It is essential to health that the dustbin be properly attended to. The admixture of vegetable and animal matter with the cinder-ash is a source of fever and diarrhœa. An iron grating should be placed on the dustbin, to prevent the introduction of substances other than ashes. If this is impracticable the dustbin should be frequently emptied of its contents and thoroughly cleansed.

Panic in a Theatre or Church.—Hundreds of lives have been lost in consequence of the crushing which has attended the frantic efforts to escape from real or fancied peril when a cry of "fire" has been raised in crowded buildings. The best method of proceeding on such occasions is to sit still, and to induce others around you to remain calm and retain their seats. Even should fire be raging in the premises, you will run less risk by remaining quiet; and the danger is increased tenfold if you become involved in a pent-up mass of human beings crushing and trampling upon each other. By retaining your seat and remaining calm you will almost to a certainty escape the danger. By following the crowd you are sure to sustain injury, and may materially diminish your chance of being rescued.

Railway Accidents.--When you have reason to apprehend a collision, or that the train has left the rails, throw yourself down in the bottom of the carriage, that you may avoid the violence of the shock. It is most dangerous to leap from the carriage, except in the direction in which the train is proceeding, and then only when you are sure of falling upon soft ground. Every traveller should provide himself with a railway key, by the use of which he may speedily extricate himself from the carriage, and be enabled to prove useful to the injured. It is unadvisable to occupy the carriage, especially the compartment, next to the tender and engine; a centre compartment of any carriage is the most secure. Any claim for compensation against a railway company should be made at once, since the least delay seriously compromises the likelihood of success. Your possessing an insurance ticket will not, in the event of an accident, in the least affect your claim for damages against the railway company.

Coach Accidents.—If you happen to be on a coach when the horses defy restraint and run away, let the driver keep them as much as possible in the middle of the road. If going uphill, breast them firmly at it, and the increased labour will speedily exhaust them; but if downhill, there is danger of an overturn, and the driver should try to run them against a hedge or soft fence. If you wish to get off the coach, in the event of the horses running away, slip down at the back, with your face *in the direction in which the coach is going*, and when you reach the ground you will probably escape unhurt.

New Safety Lamp.—It is well known that Sir Humphry Davy's safety lamp is not always a perfect security against those disasters which occur in our mining districts. This, however, is owing to the ignorance or recklessness of the miners; for it has been fully demonstrated that, however explosive the air in the mine may be, it cannot be set on fire by the wire gauze, even although it be red-hot, but only by contact with the flame itself. A safety lamp, it appears, has been invented by Mr. Samuel Higgs, of Penzance, the object of which is to prevent accidents in mines, by rendering it impossible for the miners to tamper with

the lamp. The lamp is enclosed in a case partly of gauze and partly of glass. There is no diminution of light, and no danger of explosion. The inner lamp is fastened with one kind of fastener, and the outer case with another. A new wick is substituted for the former, and affords a better light. A similar discovery has been made by Captain Gilmore, R.N.; he has contrived an apparatus by which a sort of extinguisher is forced down on the lighted wick of the lamp in the act of unscrewing it.

Portland Cement. — This cement, so named from its resemblance to Portland stone, is made from clay found in the vale of the Medway, which is mixed with chalk, and then burned. A writer in the *Gardeners' Monthly* describes the various uses of Portland cement in these words:—"Made into a thin solution like whitewash, this cement gives woodwork all the appearance of having been painted and sanded. Piles of stone may be set together with common mortar, and then the whole washed over with this cement, making it look like one immense rock of grey sandstone. For temporary use a flour-barrel may have the hoops nailed, and the inside washed with sixpenceworth of Portland cement, and it will do for a year or more to hold water. Boards nailed together, and washed with it, make good hot-water tanks; and in so many ways is it of use that we have come to look on it as one of those peculiar things in a garden which it is '"always good to have about.'"

Plaster of Paris.—Plaster of Paris is composed of anhydrous (without water) sulphate of lime; it is chiefly used for taking models and casts, uniting slabs of marble and alabaster. It should be mixed with water to the consistence of thick cream, and then applied; it hardens rapidly. Plaster of Paris may be considerably strengthened by being mixed with thin glue, or a solution of size and gum instead of water. When mixed with iron filings to the proportion of one-fifth the whole weight, plaster of Paris may be used in uniting iron.

Roman Cement. — This is composed of a porous lava found at Puzzuoli, near Naples; its chief constituents are silicates of alumina, lime, and soda. Roman cement hardens under water; hence it is called an *hydraulic* cement.

How to Utilize Old Shoes.—Cut into small pieces, and immerse them for two days in chloride of sulphur. The leather, which will become hard and brittle, must be washed, and then ground to powder. Mix the powder with glue or a strong solution of gum. The substance can be pressed into moulds, and will form buttons, combs, or other domestic articles.

Best Way to Scour Floors.—Take some clean, well-sifted sand, scatter it on the floor, have ready one ounce of American potash dissolved in a pint of water, sprinkle it over the sand, and with a scrubbing-brush and good mottled soap rub the boards along their length. Changing the water frequently, and using it very hot, makes the boards white; the potash, if properly applied, will remove all stains.

To Clean Windows.—Remove stains and dust with soap and water, then apply with a moistened rag powdered indigo, rotten-stone, or fuller's-earth. Dry with a soft cotton cloth.

To Clean Paint.—With a light brush and pair of bellows remove the dust, and remove soil spots with a sponge dipped in soap and water. In scouring wainscot begin at the top and proceed downward; use soft soap and fuller's-earth. In the process two persons should be employed, one in scouring off the dust, and the other in drying the surface with a linen cloth.

To Clean Mirrors.—Wet the surface of the glass with gin, to remove the stains. Then rub with a cloth dipped in powdered blue. Polish with a silk handkerchief. Be careful not to touch the frames.

To Clean Lacquered Articles.—Brush with hot water and soap, wipe and dry before the fire; finish with a soft cloth. Avoid the use

of pearlash or soda, which may remove the lacquer.

To Clean Britannia Metal.—Moisten the articles to be cleaned with sweet oil; then apply a little pounded rotten-stone, and polish with chamois leather and fine chalk.

To Preserve Gilding.—In ordering your furniture, desire the gilding of your dining-room mirrors and pictures to be executed in oil; it is more durable than water-gilding. Such frames may be washed; water-gilt frames will be tarnished by washing. To protect gilt frames from the flies during summer, brush off the dust with a feather or soft brush, then cover the frames with stripes of paper or gauze. An oiled tarlatan, suitable for covering picture-frames, may be procured at the furniture dealers.

To Clean Pewter.—Apply to the surface of the vessels a fine sand mixed with oil of tartar; then polish.

To Remove Stains from Paper.—The process must depend on what the stains are. If they are those of writing ink, a solution of citric, tartaric, or oxalic acid will be successful. If grease, take a heated iron and press it upon blotting-paper placed on the stains. After this process has been frequently repeated, take a soft brush and apply oil of turpentine to the stains on both sides of the paper; lastly, with a clean brush, apply to the spots already almost gone rectified spirit of wine.

To Remove Stains from the Hands.—Cut a slice of lemon, and rub it on the stains. Or wash the hands in water containing a small quantity of sulphuric acid.

Best Mode of Removing Grease from Silks, Hats, Coats, &c.—Saturate a piece of clean flannel with benzine collas, and rub gently; then expose to a good current of air.

Danger from Tinned Vessels.—A case is mentioned in the *Chemical News* of January, 1869, in which a whole family were seriously injured by the circumstance that not less than 18 per cent. of lead was alloyed with the tinning of some iron saucepans used in cooking. It ought to be remembered that tin is liable to be dissolved in some liquids; and that as copper and lead are frequently present in the solution, which thus acts when taken into the stomach as a violent poison, a tinned copper vessel in which any part of the interior surface becomes exposed by the removal of the tin, is a source of poison from the rapid solution of copper from the uncoated surface.

Sizing for Gold on Glass.—Rub up copal varnish either with white bole, umber, or ochre, all of which must be perfectly dry, and then strain through a cloth. The glass must then be cleansed with fine chalk, painted over with the varnish, placed in a warm room, and protected from dust. When it is sufficiently dry, the leaf is to be applied and pressed down with cotton.

Silvering Tubes or Spheres of Glass.—Hitherto the process of silvering glass has been practicable only on flat surfaces; by the following method, however, the internal surface of a glass globe, bottle, or tube may be readily silvered. Dissolve ten grains of pure nitrate of silver in an ounce of distilled water, and add to this, drop by drop, liquor ammoniæ, till all precipitate is exactly redissolved. The solution must be kept in a dark place in a stoppered bottle. A second solution must thus be made:—Dissolve ten grains of pure Rochelle salts in an ounce of distilled water, and filter the solution through white blotting-paper. In order to silver the globe or bottle, &c., fill it with equal quantities of the two solutions, and let the sun's rays play upon it, so as gently to heat the outside. In about half an hour the silver will be completely reduced, affording a reflecting surface applicable to a variety of purposes, ornamental and philosophical.

Pictures on Porcelain.—The production of photographic pictures on porcelain requires the following process, which will interest our photographic readers: — Cleanse the

porcelain thoroughly; beat to froth the white of one egg in an ounce of water, let it subside, and pour off carefully without filtering; flow the plate carefully with the albumen, and place at an angle to dry on blotting-paper. When the plate is perfectly dry, flow with sensitive collodion, prepared in the following manner:—Plain collodion, two ounces; chloride of strontium, three grains; nitrate of silver, twenty grains; citric acid, four grains: the last three ingredients ought to be all dissolved in the quantity of water only required for the purpose in view. The silver should be added only a few drops at a time, and the whole well shaken after each addition. The sensitive collodion must be kept in a dark place, and the flowing of the plates must be performed in the dark. When the plates are quite dry they are ready for use. The printing is done in frames the same as paper printing. Print to a reddish brown colour. For toning use water, three ounces; chloride of gold solution, three or four drops; neutralize the gold with chloride of calcium, and tone to the colour desired. After toning wash the picture well under the tap, and fix in hyposulphite of soda bath, two ounces to a quart of water. The pictures should not be left in the fixing solution over five minutes. When removed wash the same as a negative, drain dry, and varnish. If the pictures are to be coloured, the surface of the glass on which they are done should be ground, and the albumen only half as strong as in the receipt first given. If the light is good, the whole process need not occupy more than thirty minutes.

To Remove Marking-Ink from Linen.—Dip the garment in a solution of one ounce of cyanide of potassium and four ounces of water. After a few hours the stain will be obliterated. The mixture is highly poisonous, and should be carefully removed.

To Remove Stains from Black Cloth.—Boil a large quantity of fig leaves in water till the liquid is reduced to one-half of its original bulk. Bottle for use. With a sponge apply the liquor to the stained garments.

To Remove Claret or Port Wine Stains.—Apply a little table salt to the spot stained, and also moisten it with sherry. After washing no trace of the stain will be left. The acid contained in claret decomposes the salt, and sets free chlorine (bleaching gas), which removes the vegetable colouring matter of the wine. If the stain is from port, sherry should be added, as it also contains acid.

Liquid to Remove Grease Spots, &c.—Dissolve an ounce of pure pearlash in a pint of spring water, and to the solution add a lemon cut in small slices. Mix the ingredients well, keep the mixture in a warm state for a couple of days, then strain it and bottle the clear liquid for use. A little of this poured on stains of grease, pitch, or oil, will remove them. As soon as they disappear the cloth should be washed in clear water.

To Clean Kid Gloves.—Stretch the gloves on a clean piece of paper, or a wooden hand, and apply benzine collas with a piece of cotton or flannel. Apply the benzine in a circular direction. Dry with blotting-paper. By exposure to the air all traces of smell will disappear.

Poisonous Dyes.—Some time ago it was publicly stated that several persons had received injury from wearing stockings of a yellow colour, the substance employed as a dye being picric acid. Inquiries have demonstrated that articles dyed with aniline colours are injurious if worn next the skin. In many instances arsenic is essential to the production of the colour, and both the arsenical dyes and those from aniline are injurious.

Hints on Punctuality.—"Punctuality is the soul of business," is an old and true saying. The unpunctual man is never a successful one. His friends may tolerate him, society may become accustomed to his ways, his dependants may forbear to com-

plain, but all have the same opinion of him, and look with a sort of pitying contempt on his weakness. Depression in trade, and other circumstances which a man cannot control, may cause him to be unable to meet his pecuniary engagements, but it is almost impossible that he cannot arrange to keep his appointments. Careless indifference to the fulfilment of a promise, or to the convenience and wishes of others, unfits a man for active public employment, no matter how learned and accomplished he may be.

Fireproofing.—Wood, brushed three or four times with a strong solution of silicate of soda, will become incombustible. Textile fabrics should be dipped in saline solutions; alum and common salt weaken the fabrics, and should not be used. The best applications are phosphate and sulphate of ammonia and borax.

Waterproofing. — The best mode of waterproofing woollen cloth is to dip it in a solution of isinglass or gelatine, and then in a solution of galls. To waterproof packing papers dissolve one pound of white soap in a quart of water. In another quart of water dissolve one ounce of gun-nitric and six ounces of glue. Mix the two solutions, heat them, and soak the paper in the liquid. Then hang it up to dry. The various applications of caoutchouc in waterproofing will be treated of separately.

Cure for Stammering.—Keep the teeth together and inspire deeply; then articulate very deliberately. The cruel operation of excising the tonsils is entirely futile, and should never be resorted to. Respecting impediments of speech valuable observations are to be found in the works of Dr. Hunt and Mr. Melville Bell.

Best Mode of Beautifying the Hands.—Rub together in a mortar four parts by weight of yolk of egg with five parts of glycerine. No better ointment for the hands can be procured. The compound may be preserved for years.

A Few Words on the Feet.—Tender Feet.—Wear woollen socks or stockings, and change them frequently. Bathe both your feet and lower limbs in a solution of common salt, a pound of salt to a gallon of water. When spring water is used, add a tablespoonful of carbonate of soda to every pint of water. Use boots or shoes with soft leather uppers, and soles not too thin.

Cold Feet.—The best method of averting coldness in the feet and lower limbs is to wear two pairs of stockings of different fabrics, one of silk or cotton, and the other of wool; the two fabrics serving to keep in the natural heat of the feet.

To Cure Corns.—Corns are entirely owing to continued pressure, such as wearing small boots or shoes. At first they are the production of the outer skin only, but by gradually thickening they at length come to be connected with the true skin beneath, and even with the subjacent muscles. Prevention is better than cure. Wear woollen stockings, and see that there is no local and permanent pressure on any part of the foot. If a cure be requisite, soak the corn for half an hour in a solution of soda, and pare as close as possible; then apply a plaster of the following ingredients, which in Cooper's invaluable Dictionary is pronounced infallible:—"Take of purified ammonia and yellow wax, of each two ounces; and acetate of copper, six drachms. Melt the first two ingredients together, and, after removing them from the fire, add the acetate of copper just before they grow cold. Spread this ointment on a piece of soft leather or on linen, and apply it to the corn, removing it in a fortnight if the corn is not gone by that time. Grounds's Emollient Corn Plaster has been recommended as a valuable remedy also.

New Cement for Mahogany.—Melt four parts of beeswax or shellac with one of Indian red, adding as much yellow ochre as is requisite to give colour. This cement will be found most suitable for stopping

holes and rents in mahogany furniture.

To Extract Ink from Mahogany.—Dilute half a teaspoonful of oil of vitriol with a large spoonful of water, and apply the mixture with a feather to the stained wood. The ink mark will disappear.

To make Deal appear like Oak.—Rub the deal boards with globe artichokes cut in half. Then polish with a preparation of beeswax, oil, and turpentine, melted together, and applied cold with a clean, dry scrubbing-brush.

Best Mode of Cleaning Oilcloth.—First remove the dirt with a soft woollen cloth and tepid water, then polish with milk, or a weak solution of beeswax in spirits of turpentine.

Athole Brose.—This is a beverage peculiar to the Highlands of Scotland. Honey is dissolved in whisky to the consistence of cream; the drink is then taken with a teaspoon. A quantity sufficient to fill a wineglass taken at night will be found of benefit in colds and catarrhs. In preparing Athole Brose oatmeal is occasionally added.

Scotch Brose.—Put a few handfuls of oatmeal into a wooden dish; then pour in a little boiling water, and mix thoroughly. Add a little salt. This dish is frequently used as a substitute for porridge, when it is inconvenient to cook the latter. Fresh milk added is a great improvement.

A Few Words on Fires.—1. How Fires break out.—Many of the conflagrations that occur are attributed to accident; but if the causes could always be known it would be discovered that nine-tenths of the number originate in carelessness and inattention, which, considering the fearful consequences of those calamities, are in the highest degree culpable. In workshops, such as those of the joiner and cabinet-maker, where combustible materials are strewed about in every direction, most disastrous results have frequently arisen from neglect of the most ordinary precautions. In such places, collections of wood shavings left near a stove may, in the absence of the workmen, be set on fire by cinders falling on them; or a half-extinguished match thrown upon the floor may cause the shavings to smoulder, a sufficient draught of air being all that is required to kindle the fire into activity. Householders cannot be too careful that matches be cautiously used, that all fires should be safe and all lights extinguished at night, and no combustible substances permitted so near the stoves or grates as to be in danger.

2. Chimneys on Fire.—The most ready method of checking or extinguishing the fire is to stop the draught of air ascending from the fireplace. Throw some water on the fire, and fix tightly before the fireplace a piece of thick old carpeting soaked in water. The carpet thus thoroughly wet will be for the time almost impervious to air. If there be a damper in the chimney, let it first be closed. These methods will go far towards either putting out the fire, or reducing it to a *minimum*. A little flower of brimstone ought to be thrown on the fire in the grate before the wet carpet is applied; the brimstone fumes ascending the vent will help to extinguish the combustion.

3. Escape from Dwellings on Fire.—In these cases the unavoidable confusion and excitement tend to deprive people of the necessary presence of mind, and render them incapable of availing themselves of the means of safety.

We shall best consult the convenience of our readers by presenting them on this subject with the counsels of those who are the most qualified to impart them. In a letter published in the *Times* newspaper in January, 1870, Mr. Eyre M. Shaw, Captain of the Metropolitan Fire Brigade, writes:—

"In case of fire, give the alarm at once, and make every effort to escape and to save others by whatever mode of egress may be available; but in doing so remember to shut and keep shut all doors, windows, and apertures of every

kind through which air can be admitted, thus checking the combustion and giving all concerned more time to get out, or, failing this, to come and show themselves at a front window or other prominent point accessible to our ladders. In short, all persons endangered should rely on their own resources during the first moments of an alarm, and after a period which they can calculate for themselves, according to the locality in which they live, they may expect an attendance of firemen with proper appliances, and the skill and energy to use them to the best advantage, regardless of all personal risks so long as there is a hope of saving life or property. In one word, the public may rely on us to a very great extent, but must not do so altogether, as, in many cases, our success or failure depends absolutely on what they themselves do, or omit to do, previously to our arrival."

Dr. Andrew Wynter has published the following admirable "Directions for aiding persons to escape from premises on fire:—

"1. Be careful to acquaint yourself with the best means of exit from the house, both at the top and bottom.

"2. On the first alarm, reflect before you act. If in bed at the time, wrap yourself in a blanket or bedside carpet; open no more doors or windows than are absolutely necessary, and shut every door after you.

"3. There is always from eight to twelve inches of pure air close to the ground; if you cannot therefore walk upright through the smoke, drop on your hands and knees and thus progress. A wetted silk handkerchief, a piece of flannel, or a worsted stocking, drawn over the face, permits breathing, and, to a great extent, excludes the smoke.

"4. If you can neither make your way upwards nor downwards, get into a front room; if there is a family, see that they are all collected here, and keep the door closed as much as possible, for remember that smoke always follows a draught, and fire always rushes after smoke.

"5. On no account throw yourself, or allow others to throw themselves from the window. If no assistance is at hand, and you are in extremity, tie the sheets together, and, having fastened one end to some heavy piece of furniture, let down the women and children, one by one, by tying the end of the line of sheets round the waist, and lowering them through the window that is over the door, rather than through one that is over the area. You can easily let yourself down when the helpless are saved.

"6. If a woman's clothes should catch fire, let her instantly roll herself over and over on the ground; if a man be present, let him throw her down and do the like, and then wrap her in a rug, coat, or the first *woollen* thing that is at hand.

"7. Bystanders, the instant they see a fire, should run for the fire-escape, or to the police station if that is nearer, where a 'jumping-sheet' is always to be found."

We entreat the attention of our readers to these important counsels, as they will be most useful in the event of fire breaking out. Every family should be supplied with one of the patent Fire Annihilators—an ingenious contrivance, which, by copiously discharging carbonic acid gas, will, if timely applied, extinguish combustion over a large surface in the course of a few seconds.

White Gutta-percha.—White gutta-percha is much used by dentists in stuffing a decayed or carious tooth. The mode of preparing the substance is as follows:—Cut four ounces of crude gutta-percha into shreds, and put it into six pints of methylated chloroform. Let it digest for a week, agitating it occasionally; then filter through blotting-paper; then to the clear liquid add an equal bulk of spirits of wine: this precipitates the gutta-percha in pure white flakes. These are now to be collected by straining through muslin, and then well rinsed with spirit. The gutta-percha is now to be transferred to a porcelain dish, and boiled in pure water. The

flakes will now unite together, and it can be rolled into sticks on a slab, when it is ready for use. The chloroform, however, is not to be lost. It is to be recovered by mixing water with the liquid, which passes away when the gutta-percha is precipitated, and the spirit is to be separated from the water by ordinary distillation.

Artificial Light.—The immense advantages derivable from chemical and physical science are proved in nothing more remarkably than in the various modes which in these times have been adopted for procuring artificial light. Our ancestors used for all public and private occasions animal oils, and candles very indifferently manufactured, the substitute for which—wax candles—were too expensive a luxury for any but the wealthy. We have now substances in common use which our forefathers could no more have thought of than they could have imagined the art of photography or the use of the telegraph. We have candles of stearine and paraffine of extraordinary excellence as compared with wax. We have gas illuminating our streets and houses; we have light derivable from the combustion of hydrogen and oxygen, from electro-magnetic action, from lime, from carbon, from magnesium—all of them infinitely superior to anything known to our ancestors, the light procured by such means being, in most cases, too brilliant for the eye to rest upon. The magnesium light alone affords a striking example of this superiority. A piece of magnesium wire having a diameter of the one-thousandth of an inch is capable of producing a light equal to that afforded by seventy-four candles of stearine of five to the pound; the intensity of the magnesium light, indeed, is nearly equal to the 1-130th of that which is afforded by the sun on a bright day in November.

An interesting exhibition was recently made at the Royal Institution of a new mode of employing the great illuminating powers of magnesium, for the purpose of lighting public buildings. The magnesium, reduced to the state of a fine powder, was showered on small flames of gas. By this means the metal produced a most brilliant light, and although the flame was not sufficiently steady it was greatly superior in power to the usual gas flames of the burners in the lecture-room. The causes which render the light uncertain may probably be overcome.

Home-made Gas.—A number of private residences in the country remote from towns have apparatus fitted up for the production of gas for supplying the dwelling-house and offices. It appears, however, that a process has been recently patented by which, with the greatest facility, gas can be manufactured in the kitchen of every house for household use. The patent referred to claims to produce from a refuse vegetable substance gas of double the illuminating power of that furnished by the public companies, and at half the price. The kitchen range is to contain the apparatus for the manufacture, and the residuum left after the process is to be saleable at a good price.

New Application of Paraffine.—This substance seems to be capable of being applied to many uses in addition to that of affording light. It has recently been discovered by Dr. Stenhouse that it renders leather waterproof. The leather, being coated several times with paraffine and oil, is exposed to heat, by which it rapidly absorbs the mixture. The leather thus heated gives out, when struck, a wooden sound like gutta-percha, and lasts much longer than the ordinary leather made into boots and shoes. Paraffine is of excellent use in preserving the polished surface of iron and steel; when warmed and rubbed on the surface of the metal, and then wiped off with a woollen rag, it acts like varnish, and preserves the polish, whether it be light or blue.

Glycerine,—The discovery of this remarkable substance affords a new instance of the value of chemical science. It is derived from a residuum left after the making of soap and stearine candles, and which for ages was considered of no value. The discovery is of immense

importance. The medicinal properties of glycerine are of the most striking kind, but it is not valuable in pharmacy only; its antiseptic properties are marvellous. It is capable of preserving animal substances from decay; leather is preserved by it in a soft and pliable condition; wooden vessels saturated with it neither shrink nor dry up; it is used for extracting the odour of flowers, and is of great value in the processes of dyeing, brewing, liqueur making, and wine keeping; its power in healing sores and removing pains, such as earache, is wonderful. With nitric acid it forms nitroglycerine, a substance whose explosive force is many degrees greater than that of gunpowder.

Best Advice on Liquids.—Liquids are indispensable to digestion, and to repair the waste we constantly suffer from perspiration, breathing, &c. We require more drink at one time than at another. This variable demand depends on the season, the state of the weather, the character of our food, the amount of exercise we take, and the degree of heat or cold we are exposed to.

PHLEGMATIC TEMPERAMENTS require less drink than the choleric and the sanguine. Sedentary persons require less than the laborious, and in all cases less drink is required in winter than in summer.

TO DRINK IMMEDIATELY BEFORE A MEAL is objectionable, because thereby the gastric juice is diluted, and the digestion does not proceed in so favourable and perfect a manner as when this practice is avoided.

THOSE WHOSE STOMACHS ARE WEAK invariably find that soups do not agree with them. The water in the soup dilutes the gastric juice, already too weak, and renders it unequal to the work of digesting the small amount of solid substance contained in the soup. The best rule for persons of weak digestion is to avoid slops of all kinds, and prefer solid food.

Artificial Gems.—Mere imitations of precious stones have long been successfully made, but a French chemist has succeeded in forming gems by fusing alumina with fluor-spar at a white heat. Rubies and other gems have thus been made. So great are the powers of chemistry, that it is not improbable that the most precious stones may be produced, equal in beauty and value to those formed in the laboratory of nature.

Fuel of Different Kinds.

1. COAL.—Coal is unquestionably the best species of fuel. It is of vegetable origin. Its formation has depended on the change which all vegetable matter undergoes when exposed to heat and moisture under circumstances that exclude the air, and prevent the escape of the more volatile principles. The chemical changes which vegetable substances undergo when placed under great pressure, so as to confine the gaseous principles they contain, produce bitumen, lignite, or coal, according to the various modifications of the process. The Newcastle coal-fields are believed to be the best in England for domestic purposes; and in Scotland, the coal from the Elgin mines at Dunfermline maintains a high reputation. Cannel, or Parrot coal, is chiefly used in the manufacture of gas and paraffine oil. Anthracite coal contains ninety per cent. of carbon, but it burns with difficulty except in furnaces. Slate coal yields bituminous matter very largely; it is therefore highly suitable for preparing coke. The splint coal of the Lanarkshire coal-fields is not easily kindled, but evolves much heat. Welsh coal, owing to its chemical character, is of the highest value for steam purposes. The Welsh coal-field extends from the Forest of Dean to Milford Haven, and the demand, chiefly for supplying marine steam-boilers, has been such that it has raised the rent-roll of the owner, the Marquis of Bute, to £300,000 per annum. For ordinary domestic purposes, a mixture of coal from different coal-fields is the most suitable store for the coal-cellar. A supply of coal ought to be stored at the end of summer, or early in autumn, when the article is cheaper, and has not been so long exposed to the air.

2. Coke is the most valuable of the secondary products resulting from the manufacture of gas. The best coke, however, is obtained from coal when carbonized in large masses in ovens constructed for the purpose. In a gas manufactory, the production of coke being of less importance than the formation of good gas, it is often of a quality inferior to that made in coke-ovens, where it is the primary object for which the coal is carbonized. But gas coke is excellent for many purposes in the arts and manufactures, producing as clear a fire as that of the first quality; and for domestic use it is unobjectionable, and may be burnt both in the drawing-room and the kitchen with comfort and economy. The distinguishing characters of good coke are (1), a clean granular fracture in any direction, with a pearly lustre somewhat similar to that exhibited by cast iron; (2), density or the close proximity of its component particles, which adhere together in masses; (3), when exposed to a white heat, it consumes entirely away, without leaving either ashes or slag.

3. Wood and Peat Fuel.—Log fires emit a powerful heat, and blaze cheerfully, but are attended with danger, owing to the splinters which are apt to fly about the room. The best time to place wood on the fire is in the afternoon, when the grate is thoroughly heated. Fir cones, when properly dried, form a cheerful and economical fuel. Peat fires are generally dull, and emit an unpleasant smell. Peat is much used as fuel in the Scottish Highlands, and in different parts of Ireland.

4. Artificial Fuel.—Messrs. Stickney and Chase, of Lockfort, New York, have patented a composition for fuel. This compound consists of coal, three parts; tan bark, two parts; sawdust, two parts; peat or other vegetable matter, one part; coal tar or pitch, one part. The whole mass may be easily ignited with paper or shavings. Coal-dust has by various processes been utilized for the purposes of fuel. Made up into bricks with asphalte and other substances, it is known as "Patent Fuel." The refuse of coal, mixed with clay, and formed into balls, is used as fuel by the humbler classes. A professor in Switzerland has lately discovered a method of improving fossil coal by impregnating it with bitumen and naphtha. For several years Dr. Richardson and other eminent chemists have been engaged in making experiments to adapt *dead oil*, a refuse of tar distillation, to the purposes of fuel.

Best Coal-scuttle.—The best coal-scuttle for a reception-room is that in the pillar form, elegantly japanned, and adorned with gilding. Some scuttles are constructed so as to resemble a ladies' work-table. A small scoop ought to accompany the scuttle, by means of which any lady or gentleman may add fuel to the fire without discomfort or loss of dignity.

Best Way to Fasten Handles of Knives and Forks.—Fill the aperture of the handle with the powder of common resin. Then heat the stock of the knife or fork blade, and force it into the handle. When cold the handle will be perfectly tight. The common cement used by cutlers is made of equal weights of resin and brick-dust, or for a superior quality, four parts of resin, one of bees-wax, and one of brick-dust.

Best Knife Sharpeners.—A blunt carving-knife is not merely a source of discomfort to the carver, but the guests suffer by delay. The best method of keeping sharp table and other knives is to purchase the revolving knife sharpener, a little instrument provided with two steel cylinders with grooved edges. Any ordinary steel blade may be thoroughly sharpened by being drawn twice lengthways between the cylinders. The instrument is to be procured at a moderate price. By moving the cylinders occasionally it may be made to last for a lifetime. It should always be placed beside the carver at table. The steel used by butchers is not adapted for family use, and it ought not to be produced at table.

Spring.

Loud chirrup of birds in the garden,
Gay tossing of boughs in the breeze,
Bright dazzle of morning sunlight
That comes slanting along through the trees;
You fill me with yearning impatient!
And as wide my window I fling,
Out there, in the sun, laughs the year's dearest maid,
The dew-bespangled Spring!

She was coming, I knew, when the frailest
Of blossoms the snowdrop showed;
I said, "She is near," when the crocus clumps
In yellow and purple glowed;
"She is here," I cried, with the love that stirred
The hearts of the poets of old,
When I saw flash along the banks of the lane
A border of primrose gold!

I walked with her down to the brooklet—
It ran with a full-voiced song—
While overhead the loud torrent tore
The cliff as it rushed along.
I strayed with her on to the brimming lake
That the streams of the spring had swelled,
And pearl was the hazy distance,
And sapphire the waves I beheld.

I passed with her into the wood on the hill,
And my heart was strangely stirred
With the tender green of the early year,
And the wooing song of the bird.
Above and around—fresh life, fresh hope!
I drank them in with the air,
Till I gazed again with the eyes of youth,
When all the world was fair.

As I breathed this sweet air of the springtide,
I thrilled with a fuller life,
Till my heart sang again the songs of yore,
And old thoughts in my brain were rife,
And the strength and the daring of long ago
Came back to nerve and brain,—
'Twas Spring called the leaf and flower and the stream
And *me* to new life again.

D. MURRAY SMITH.

The Month of April.

"Hail, April, true Medea of the year,
That makest all things young and fresh appear!
Sweet, I have penned thy praise, and ere I bring it;
In confidence the birds themselves will sing it."—*The Twelve Moneths*, 1661.

April, the fourth month of our year, is pre-eminently the month of smiles and tears, of showers and sunshine, and is worthy of Venus, the goddess of beauty, to whom the Romans dedicated it.

Nature seems to awake from her long winter sleep, and put forth the fresh buds of spring; the grass, watered by the frequent showers, becomes green as an emerald; vegetation advances with rapid strides; bees hum all day among the apple blossoms; the peach, plum, and cherry trees are a blaze of beauty; while the graceful laburnum with its golden clusters, and the lilac with its abundant flowers, fill the air with perfume.

Nor are the birds wanting in the general rejoicing at the departure of winter. Those of them that had sought a milder climate now return to our shores. The swallow begins to build his little mud cabin, and the cuckoo does not fail to announce his arrival with his unceasing call; while every bush is vocal with the morning and evening song of the goldfinch, the thrush, and the linnet.

April is the first in order of the four months in the year that consist of thirty days each.

The Cook's Calendar for April.

Fish in Season.—Turbot, salmon, trout, sturgeon, soles, smelts, whitings, mackercl, mullet, oysters, shrimps, skate, plaice, prawns, perch, lobsters, herring, brill, crabs, dory, eels, halibut, carp, cockles, tench.

Meat in Season.—Beef, mutton, veal, pork, house lamb, and grass lamb.

Poultry and Game in Season.—Fowls, chickens, ducklings, green geese, pigeons, pullets, turkey poults, leverets and rabbits, wild duck, snipe, teal, widgeon.

Vegetables in Season.—Seakale, asparagus, lettuce, endive, spinach, radishes, brocoli, onions, small salad, cucumbers, parsley, turnip-tops, rhubarb, strawberries, apricots. Cherries can now be had forced in a hothouse.

The Gardener's Calendar for April.

"*Soft April showers*
Bring forth May flowers."

All seeds intended for early crops should now be sown—cabbages, brocoli, Brussels sprouts, cauliflowers, in warm borders for future transplantings. Peas and beans may be sown every fortnight until July, for a succession of crops. Scarlet runners sown in an open spot will flower early. Cucumbers, melons, pumpkins, vegetable marrows, may be sown as in March in a cool hotbed. Sow lettuce of various kinds, cress, spinach, radish, and Savoy seed; prick out celery plants, and attend to the raking and forking up of beds, destroying of weeds, and to the gravel walks, which are now likely to be infested by worms; salt is an excellent preventive of worms; soot is also useful for the same purpose. Many of the best fruit trees are now in bloom, and are likely to be attacked by insects; to destroy these the trees should be examined every two or three days, the caterpillars pulled off, and a syringing with tobacco water will prevent others from taking their place. Vines and peach trees ought to be carefully examined, and all superfluous buds rubbed off. In the flower-garden tulips and other bulbs which are about to blossom must be sheltered from the frost at night and from the sun by day. If the season is an early one, pot out pinks, calceolarias, cinerarias, and fuchsias; sow mignonette, convolvulus, sweet-pea, and other hardy annuals; finish pruning roses; replant hollyhocks, and put out the first and strongest lot of dahlia roots; attend to the forking and raking of beds, and to the gravel walks.

Hints on Marketing.—The purchaser will do well to keep in view one or two simple rules. Whatever kind of provisions may be required, it is invariably the wisest course to deal with those tradespeople who have a large business, and who are known and respectable. It is the interest of such persons to supply their customers with the best articles, and for this purpose they themselves must go to the best markets. As a general rule they are under no temptation to overcharge their customers. Their success in business and their profits depend on the number of their retail transactions, and if the number be great, they are all the more able to supply the best articles, and to be content with the smallest profits on each individual sale. As an illustration of this it may be stated that, with very few exceptions, all commodities are dearer, as well as of inferior quality, in shops in the suburbs than in those situated in places of the greatest concourse: the reason is that small dealers, who have comparatively few transactions, must necessarily make up for the defects of their business by obtaining large profits on individual sales, while, at the same time, they have little or no encouragement to obtain the best goods, and in many cases want of sufficient capital renders this impracticable. It will be usually found, however, that there is no economy in purchasing inferior articles. In butcher's meat, for example, the best meat, and the best parts of the meat, although at first a little dearer, are in reality cheaper in the end.

Hints on Choosing Fish.

—To Choose Fish.—All fish, of whatever species, may be known to be perfectly fresh by their being rigid and having bright eyes.

Some fish cannot be too fresh; as, for example, the mackerel and the herring. This rule is universal as regards those kinds of fish that inhabit chiefly or altogether the surface of the water. They not only die instantly on being taken out of it, but a rapid change takes place, so that in a very few hours, although they appear to be fresh, they lose their flavour.

Fish that inhabit the deep waters, and lie near the bottom, are not only more tenacious of life, but their flesh keeps longer. The skate and the cod are examples of this, and many persons prefer these fish when kept a day or two before being cooked.

Crabs, Lobsters, &c.—When they are light they are poor and watery. They should be solid and heavy when good. This can be easily ascertained by comparison.

Oysters.—Fresh oysters have the shells firmly closed. If they are in the slightest degree open they are unfit for use.

Hints on Choosing Meat.

—Beef.—In ox beef, when good, the grain is loose, the fat yellowish, and the flesh red. If the animal has been in its prime, the meat ought to be sufficiently elastic to rise up quickly when pressed down by the fingers.

Veal ought to be white in colour. Cow veal is to be preferred to the veal of a bull calf.

Mutton.—Good mutton is firm and close in the grain, the colour is red, and the fat white and firm. Wether mutton is better than that of the ewe.

Lamb.—Neither lamb nor veal keeps long. In lamb, if fresh killed, the vein in the neck is bluish; if the meat is becoming stale the vein is greenish.

Pork when good has a thin and smooth skin; when too long kept the flesh becomes flabby and flaccid.

Bacon, like pork, should have a thin rind; the fat should be firm and tinged red by the curing, and the flesh of a clear red colour.

Hints on Choosing Poultry and Game.

—To Choose Poultry.—The chief object in choosing poultry of any kind is to ascertain the age of the fowl.

Common fowls ought to be plump on the breast and fat on the back. When young the legs and combs are smooth.

Turkeys.—In old birds the legs are rough and reddish; in young birds they are smooth and black. When fresh killed the eyes are clear and full, and the feet moist.

Geese.—When old the bills and feet are red; when young they are yellow. When fresh killed the feet are pliable; when too long kept they are stiff.

Ducks.—Those with pliable feet and plump breasts are the best.

Pigeons.—They have supple feet when young.

Partridges.—If young birds, the bills are dark coloured, and the legs yellow.

Snipe and Woodcock.—The feet are thick and hard when the birds are old; if soft and tender they are young and recently killed.

Hares and Rabbits.—When old the haunches are thick, and the ears dry and tough. The ears of a young hare tear very easily.

Fish as an Article of Diet.

—Considerable difference of opinion prevails as to the nourishing properties of fish as an article of food. The flesh of fish is considered inferior in quality to that of birds and quadrupeds, and it is doubtful whether it ought to be allowed to delicate persons, although many physicians of great eminence consider fish to be both light and nutritious. The fat of fish quickly becomes rancid, and is certainly more insoluble and less digestible than that of other animals.

Salt-water fish are in general superior in quality, as regards food, than those inhabiting the fresh waters. Their flesh is more solid and agreeable. The herring, the whiting, the cod, and the sole, as well as the turbot and

flounder, are justly regarded as excellent; among the finny tribes inhabiting the fresh waters the only fish that can be compared with these are such as the perch and the gudgeon; even the salmon is inferior to salt-water fish in wholesomeness, although esteemed more palatable.

Animal Food.—It may be affirmed with certainty that the flesh of full-grown animals is much more digestible and nutritious than that of their young, and, as respects the larger animals, this rule is without exception. Beef and mutton, for example, are more easily digested and more wholesome than veal or lamb; and it is worthy of remark that the flesh of tame animals is more wholesome than that of wild animals, the flesh of quadrupeds than birds, and that of birds than fishes.

Animal Food as regards Invalids.—Although the meat of young animals, such as veal or lamb, is less nutritious and less wholesome than that of the full-grown animals, it is sometimes proper to give the preference to the former kind of meat in the case of persons who are convalescent from acute diseases, because it is less likely to excite heat or feverishness. And yet it is not unfrequently found that, when the stomach of a patient is delicate and irritable, a little tender beef or mutton will produce less general uneasiness than either veal or lamb. It may be observed as a general rule, both in chronic ailments and in health, that a solid diet is more digestible than one of a fluid nature.

Ox beef is highly nourishing and wholesome food, and readily digested when fresh by healthy persons. It is the most strengthening of all kinds of animal food, and it is almost the only species of such food that is in season all the year. It forms the common diet of the inhabitants of this and of many other countries. Cow beef is less nourishing, less tender, and less digestible. Bull beef is rarely eaten; it is dry, tough, and difficult of digestion, and has a strong, disagreeable smell.

Mutton is a highly nutritious and wholesome meat. It is the most digestible of all animal food, and perhaps more universally used than any other kind. Wether mutton is the most esteemed and the most digestible. Ewe mutton, if more than three or four years old, is tough and coarse. The flesh of the ram has a strong, disagreeable taste, and is exceedingly tough and indigestible, and is never used but by those who are unable to procure mutton of better quality.

Veal is sufficiently wholesome for those who are strong and healthy. As it is not of a heating quality it is frequently allowed by the medical profession to patients convalescent from an attack of fever, and to those who have any tendency to bleeding from the lungs or elsewhere, especially when used with some acid. But it is well to bear in mind that many eminent physicians refuse to permit their patients to partake of it, from its being indigestible and apt to irritate the stomach and intestines.

Lamb is considered by the most competent authorities as less heating than mutton; but those who suffer from indigestion frequently find it unsuitable to them. Lamb is more light and wholesome when not killed too young. When six months old it is fatter and more muscular, and in all respects better than the animal killed at two months old. As to house lamb, it is esteemed because unseasonable, and like all animals raised in an unnatural manner, its flesh is unwholesome.

The Stag and Fallow Deer.—The flesh of these animals, well known as venison, is very digestible, wholesome, and nutritious. The common stag ought not to be killed till he is more than four years old, and the flesh is fattest and best flavoured in the month of August.

The hare and rabbit afford wholesome and nutritious food; the flesh of the latter is more digestible, however, and less heating than that of the former, although less nourishing, and it is remarkable that the flesh of the wild rabbit is more palatable, as well as more digestible, than that of such as are domesticated.

Cookery.—General Remarks.—Before presenting to our readers any particular directions as to the best methods of preparing food, a few brief remarks on the subject generally may not be unworthy their attention. It is unnecessary to demonstrate the utility and importance of the art, since it is the means by which our food is rendered not only palatable, but digestible and conducive to health; it is, however, desirable that our readers, before considering any special receipts or prescriptions for preparing dishes for the table, should have some definite ideas as to the relative advantages of the various methods of dressing meat, which may be comprehended under the following subdivisions: viz., roasting, broiling, boiling, stewing, frying, and baking. It will be found, from what is said under each of these heads, that all the methods enumerated have not equal claims to our approbation.

Roasting.—General Remarks.—If the antiquity of an art gives it a preference, there can be no doubt that the process of roasting ought to occupy the highest place in our estimation. It was undoubtedly the first method invented for preparing animal food; for although it is certain that a piece of beef can be boiled in the skin of the animal, yet the process of boiling infers some advance in civilization, and some progress in the art of manufacturing vessels suited to such a purpose. Roasting, then, may be considered the most ancient method of cooking meat; it has, however, much better claims to our approval than its primitive character. It is an excellent method of rendering food both wholesome and nourishing. Without greatly changing the chemical properties of the meat, it renders it more tender and highly flavoured, and its nutritive juices are not so much dissipated as in some other processes of the culinary art. The process, however, requires very considerable skill and experience. To roast meat too slowly dries it up and withers it; if the operation be too rapid, the outside of the meat will be burnt, while the interior may be nearly raw. In both cases the meat is partly lost, and possibly the temper of the master or mistress of the family along with it. As a rule, our meat is generally over-roasted, and thereby greatly deteriorated. The process is carried far enough when the steam from the meat puffs out in jets toward the fire, for this steam comes from the interior of the joint, and forces its way through the brown crust.

Time required for Roasting.—Meat in general requires about the same length of time to roast as to boil, viz., a quarter of an hour to each pound in the piece to be cooked; but it must be obvious that allowance must be made for the strength of the fire and the heat or coldness of the weather.

Fire Necessary in Cooking.—The kitchen fire ought to bear a certain proportion to the size of the meat to be roasted. A large joint requires of course a proportionate fire. The meat should in general be placed at a good distance from the fire, and brought gradually nearer to it. Large joints, whether beef, mutton, or veal, ought to have paper placed over them, to prevent the burning or scorching of the surface; but when the meat is nearly done the paper ought to be removed.

Well done or Underdone.—Beef and mutton when roasted ought as a general rule to be somewhat underdone; but pork, veal, and lamb ought always to be well done; they are, in fact, otherwise unwholesome as well as disagreeable.

Beef.—Presuming that the general directions already given have been attended to, and the beef properly roasted, it only remains to be stated that the meat when served is to be garnished with horseradish scraped fine.

Loin of Veal.—Follow the general directions, papering the back of the meat to prevent scorching; when done pour melted butter over it, garnish with lemon, cut in slices, and serve it up, accompanied with any of the following vegetables, viz., brocoli, French beans, peas, cauliflowers, and potatoes.

Fillet of Veal.—In preparing a

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fillet of veal for roasting, stuff it well with the following, viz., a quarter of a pound of suet chopped fine, parsley and sweet herbs chopped, grated bread and lemon peel, pepper, salt, nutmeg, and the yolk of an egg, all worked up together. It is to be served with the same sauce as the loin.

To Roast a Saddle of Mutton, &c.—Take lean ham, truffles, green onions, parsley, thyme, and sweet herbs, all chopped small, with some spice, pepper, and salt. Strew them over the mutton when the skin is taken off, put the skin over it neatly, and before roasting it tie over it white paper well buttered. When the meat is nearly done take off the paper, in order that the surface of the meat may be nicely browned. Good plain gravy is the best, and serve with the meat, potatoes, brocoli, French beans, and cauliflowers.

Shoulder, Loin, and Leg of Mutton.—These and other pieces of mutton require no stuffing, and the general directions for roasting them will be amply sufficient if properly attended to.

Lamb.—Whatever joint is put down, it should be well roasted; lamb is not eatable when underdone. Mint sauce is the best; the leaves of the mint must be chopped very fine and mixed with vinegar and sugar. Peas, cauliflowers, French beans, ought to be served with it. If it is the fore quarter that is roasted, cut off the shoulder, and sprinkle with salt the ribs where it is cut from.

Leg of Pork.—This meat must be well done; it cannot be eaten if underdone. Sprinkle it with a little salt the night before cooking it, and hang it up. Stuff with sage and onions at the knuckle, sprinkle with sage and onions. Serve with potatoes and apple sauce, and observe the general directions as to roasting.

Chine of Pork Roasted.—Make a stuffing of parsley, thyme, sage, eggs, and crumbs of bread, seasoned with pepper, salt, shallot, and nutmeg. Let it be stuffed thick and roasted gently. When about one-fourth roasted cut the skin into long strips. Serve with potatoes and apple sauce.

The roasting of poultry always requires a clear brisk fire; when they become a little frothy and of a light brown colour they are done enough. Care ought to be taken not to overdo them; it greatly impairs the flavour to roast fowls too much. Tame fowls require more roasting than wild fowls. Large poultry ought to be papered when roasted, and for the same reason that large joints of meat require to be so.

To Roast Turkey. — Prepare a stuffing of sausage meat, or a bread stuffing if sausages are to be served in the dish. Let the heat of the fire be chiefly applied to the breast, otherwise the breast may not be done through. Put a slip of paper along the breast-bone to prevent its being burnt while the other parts are roasting. Baste well. Serve with gravy in the dish, and bread sauce in a sauce tureen.

Turkey and Chestnuts.—To roast the turkey with chestnuts take a quarter of a hundred of the chestnuts, peel them (save eight or ten), bruise them in a mortar with the liver, a quarter of a pound of ham well pounded, and sweet herbs and parsley chopped fine; season with mace, nutmeg, pepper, and salt; mix all together, and put them into the bird as stuffing, and roast according to the general directions. For sauce, take the rest of the chestnuts, cut them in pieces, put them into a strong gravy with a glass of white wine, thicken with butter rolled in flour.

Roast Goose.—Presuming that the bird is carefully plucked, singed, washed, and dried, put into it a seasoning of onions, sage, pepper, and salt, fastening tightly the neck and rump. Put it at first at a distance from the fire; paper the breast-bone; baste well, and when the breast is rising take the paper off. Let good gravy be sent in the dish. Serve with potatoes, gravy, and apple sauce.

A green goose when roasted ought to be served with gooseberry sauce.

Ducks.—Prepare them in the same

way as geese, seasoning with sage and onions, pepper and salt. A duck can be roasted at a good fire in about twenty minutes.

Roast Fowls and Chickens.—Put them down to a good fire, baste them well with butter. A fowl will require nearly an hour to roast, and a chicken about a quarter of an hour or twenty minutes. For the fowl let a gravy be made of the neck and gizzard, and when strained put in a spoonful of browning. Serve the chicken with parsley and butter.

Roast Hare.—After skinning let it be very carefully washed, and soaked in water an hour or two; if old, let it lie in vinegar and water, which will make it tender, after which let it be well washed in water. A hare will take about an hour and a half to roast. To make the stuffing, take three handfuls of bread crumbs, a handful of beef suet chopped very fine, a little lemon thyme and parsley, and two eggs; roll it up, and put it into the inside of the hare, cover the back with fat bacon to keep it moist, and baste frequently. Serve with gravy, butter, and currant jelly.

Roast Rabbits.—Rabbits may be roasted in the manner prescribed for hares, and with similar stuffing. But if the stuffing be omitted, take the livers, with a little bunch of parsley, boil them, and chop them very fine together; melt some good butter, put half the liver and parsley into it, pour it into the dish, and garnish with the other half. The rabbit should be done of a fine light brown. Half an hour's roasting at a good clear fire will be sufficient.

Wild Fowl.—They are in general better liked when somewhat underdone; for as soon as they are well heated through they begin to lose their gravy, and if not taken off they will eat hard. A duck or widgeon will be done in a quarter of an hour. A teal will not require more than ten minutes; in both cases the fire ought to be brisk.

Woodcock, Snipes, and Quails.—None of these birds ought to be drawn. Spit them on a small bird spit; flour them and baste them with butter; have ready a slice of bread toasted brown, which lay in a dish, and set it under the birds for the trail to drop on. When done enough take them up and lay them on the toast; put some good gravy in the dish; serve with butter, and garnish with lemon or orange.

Green plovers are to be roasted in the same way as woodcock, without being drawn, and served on toast.

Grey plovers may be either roasted or stewed, with gravy, herbs, and spice.

Boiling.—General Remarks.—This is a useful method of preparing some kinds of animal food, and if the process is properly carried through, the meat is rendered more soluble without being deprived of its nutritive qualities. Some medical men, who have considered the subject of diet, seem to hold that boiling is a method of preparing meat particularly suited to persons of delicate digestion. This, however, must be an erroneous opinion; for it is certain that boiled meat is less easy of digestion and less nutritious than that which is either broiled or roasted. It is deprived, by the action of the hot water, of some of its most important constituents, which become largely diluted with water, and cannot in that condition be suited to a stomach whose powers are feeble. Boiled beef is certainly inferior to roast beef in every point of view, and the same remark is equally applicable to mutton. Boiling is entirely unsuited for game, and not well adapted for young and tender meat.

Observations on Boiling Meat, &c.—Attention to the following directions on this subject will render it unnecessary to prescribe the mode of boiling requisite for each particular joint of meat.

All meat should be boiled as slowly as possible, and in plenty of water, which will make it rise and look plump.

The time to be allowed in general is a quarter of an hour for every pound the meat weighs; but a leg of pork, or

of lamb, will require about twenty minutes above that allowance.

All fresh meat ought to be put into the pot when the water boils; but salt meat when the water is warm. If, however, the latter has been long in salt, it should be put on the fire in water quite cold.

In boiling meat the water should be kept at the boiling point. Unless this is done the meat will not be properly done, although it may have been long enough on the fire, in accordance with the rule already laid down.

To skim the pot carefully is important, for the scum which arises, if boiled down again, tends to darken the colour of the meat.

Boiling in a well-floured cloth tends to make the meat white.

Vegetables ought never to be dressed with the meat, with the exeeption of earrots and parsnips, which may be boiled with beef.

Fowls ought to be boiled by themselves, and in a good supply of water.

Boiled Round or Brisket of Beef.—Follow the general directions in boiling either of these pieces. Serve with greens and carrots.

Boiled Veal.—Veal must be well boiled, or it will be unwholesome. Serve with parsley and butter, or aeeompany it with a dish of bacon and greens.

To Boil a Calf's Head.—Let it be carefully washed, cleaned, and dried. Parboil one half, beat up the yolk of an egg, rub it over it, and strew over it a seasoning of pepper, salt, thyme, parsley ehopped small, shred lemon peel, grated bread and nutmeg; put small pieees of butter over it and bake it. Boil the other half while in a cloth, and put both into the dish. Boil the brains in a cloth with a little parsley; when boiled chop them small, warm them in a saueepan with a little butter, pepper, and salt. Boil and skin the tongue, plaee it in the middle of a small dish, with the brains round it, and accompany it with a dish of bacon or pickled pork, with greens and earrots.

Boiled Leg of Mutton.—In boiling a leg of mutton all that is necessary is to attend to the general directions, and serve with turnips and caper sauce.

Boiled Leg of Lamb.—Boil in a cloth very white. Cut the loin in steaks, beat them and fry them brown, after which stew them in strong gravy. Put the leg in the dish, with the steaks round it, place some spinach and parsley on each steak. Garnish with lemon, and serve with gooseberry sauce or with stewed spinach and melted butter.

Boiled Ham.—If the ham be large and old it must be soaked in water for sixteen hours before being cooked; a young ham, however, need not be soaked. When boiled for the length of time indicated by its weight, take it up, pull off the skin, rub the ham over with egg, strew it with crumbs of bread, baste with butter, and brown it lightly at the fire.

Boiled Rabbits.—Put them for ten minutes into a saucepan of warm water; boil them for three quarters of an hour, or an hour if they are very large; serve with onion sauce or parsley and butter.

Boiling Fish.—The proper sign that fish is done by boiling is that the flesh separates readily from the bone, and has lost all appearance of redness and transparency. It is important that this should be kept in view, as fish underdone is unwholesome. The opposite extreme, however, must also be carefully guarded against.

Boiled Haddocks.—Put them into cold water, with a little salt in it. When the water begins to boil take them off the fire and let them simmer for ten minutes. Strain the water off and serve with anchovy sauce.

Boiled Cod's Head and Shoulders.—Tie it up closely and put it into cold salt and water suffieient to cover it. Boil for twenty minutes. Garnish with horseradish and walnut pickle, and with the milt, roe, and liver; serve with oyster, shrimp, or anchovy sauce.

Boiled Soles.—Choose the largest for boiling. Clean them well; rub them over with lemon-juice, and put

them on the fire with cold salt and water. When the water boils take off the scum, and let them simmer from ten to fifteen minutes.

Boiled Turbot.—An hour before it is dressed soak it in water with a little salt in it. Score the skin across the thickest part of the back; this will prevent the breaking of the fish on the white side. Put a handful of salt into the fish-kettle. When coming to a boil skim it, and set the kettle on the fire so as to simmer gently for fifteen or twenty minutes. The fish breaks to pieces when fast boiled. When dished sprinkle over the fish a little of the red inside coral spawn of the lobster, rubbed through a sieve. Garnish with slices of lemon and finely scraped horse-radish. Serve with lobster sauce.

Boiling Fowl. — In boiling fowls put no more water to them than will barely cover them, for the boiling water extracts from them a large quantity of nutritious matter. It is better to boil them in veal stock, which will not extract so much nutriment, and will itself improve in the process. Accompany the boiled fowl with ham, bacon, or tongue, and sauce of parsley and butter.

Boiled Turkey.—A large turkey stuffed with forcemeat will take about two hours to boil; one without the stuffing an hour and a half, and a hen turkey three quarters of an hour. The following stuffing will be found excellent:—Take bread, herbs, salt, pepper, nutmeg, lemon peel, a few oysters, or an anchovy, a piece of butter, some suet, and an egg; incorporate them well together, and introduce the stuffing under the skin of the breast, confining it from coming out. Accompany the turkey with ham or tongue, and with oyster, celery, or liver sauce.

Boiled Goose.—Having singed the goose, pour over it a quart of boiling milk, let it lie all night in the milk, after which take it out and dry it well; stuff it with sage and onion, cut small, sew up the openings, and hang it up for a day. Boil for one hour, and serve with onion sauce.

The Kitchen—its Fittings and Furniture.—As the kitchen is perhaps the most important and necessary apartment in a house, it will not be out of place to say a few words about its fittings and furniture. In the March number of *Best of Everything* the ordinary kitchen or range stove was described, but as many of our readers may wish to learn something of other kinds of cooking apparatus, we shall begin with a short account of the—

Leamington Kitchener.—The Leamington kitchener is one of the best and most convenient of modern cooking stoves. There is an open front fire for roasting, which can be arranged for heating steam kettles and steam closets, and is an effectual cure for a smoky chimney. The ovens are thoroughly ventilated with hot air, and can be converted into roasters at pleasure. Strong-pressure boilers can be fitted to the kitchener for the purpose of supplying hot water in any part of the house for baths and dressing-rooms, and the whole of the hot plate is available for boiling or stewing, without soiling or injuring the cooking vessels. By the application of the patent regulator the fire can be increased or diminished by turning a handle, which raises the bottom of the grate, and brings a small fire close to the top plate. The Leamington kitchener can be procured, according to the size, at prices varying from five guineas to £58.

Patent American Kitchener. — This is unquestionably one of the most useful and economical of recent inventions for large kitchens; it is especially adapted for hotels and boarding-houses. An American kitchener which we lately inspected had accommodation on the top for twelve large and four small boilers, pots, kettles, or saucepans; four separate large ovens, and two fire chambers, so disconnected in their operation that but one fire and only one-half the range may be used at a time if desired. The flues pass all round each of the ovens, imparting to them uniformity and regularity of heat. The fire chambers are lined with fire-bricks, and the

whole top of the hot plate is so divided into sections as to render it perfectly secure against cracking. The consumption of fuel is very small, and the range is constructed in two parts (easily connected together), so as to be conveniently removed or shipped to a distance. An American kitchener of this size costs about £30.

Slow Combustion Boiler, for heating Water for Baths, Washing, &c.—This useful and ingenious contrivance is so constructed as to generate a large amount of heat with a limited expenditure of fuel. It also presents the largest possible absorbing surface to the action of the heated products of combustion on their passage from the fire-box to the chimney, and causes them to circulate between the outer surface of the boiler and the case. The perfect manner in which the heat from the burning fuel is taken up by the water in the boiler appears from the temperature of the smoke-nozzle, through which the heated gases escape to the chimney. This temperature, in boilers doing a duty equal to 800 to 1,000 feet of 4-inch pipe, is frequently so low as to allow the attendant to place his hand upon the nozzle without inconvenience. The slow combustion boiler is supplied from the manufactory at prices from £2 10s. to £18 10s.

Captain Warren's Patent Cooking Apparatus.—This cooking apparatus, which claims perfect novelty of invention, occupies a space of 2 feet 2 inches by 1 foot 10 inches, and is 3 feet 7 inches high, exclusive of the six tin cooking-boxes. The slide-doors belong to the fire-box; the upper for feeding, the lower for ashes. There are two boilers and an oven. The former are placed one above the other, so that the lower is exposed to the direct action of the fire; and the upper, which takes a little longer to rise to the boiling-point, forms the back to the oven. These boilers are so constructed that the heat passes through flues in them, and they are provided with feed-pipes at the back, and whistles to announce a deficiency of water. They hold eight gallons each. The tin cookers are of two kinds,—one into which the steam is directly admitted, the other having an interior lining, so that the steam enters the outer space only. There are three of each. The latter kind are so arranged that the outer casing exists in the top as well as the sides. The steam communications are all simple and well fitted. Thus meat, soup, &c., can be cooked in dry air, with a great diminution in the loss. The oven is large enough to roast a joint of about twenty-three pounds, or bake sixteen pounds of bread. Its means of ventilation are very complete. There are "draw-off" taps to both boilers, and the most efficient means for cleansing the flues.

Captain Warren claims for this invention, that any viands can be cooked without coming into contact either with water, steam, or fire, resulting in no loss of the nutritious portions. Besides this, that no water is absorbed by the meat, which is cooked at a temperature most favourable for the purpose; that one set of vessels can be used for either baking or boiling; and that dressed meat can be kept hot for some time without being spoilt.

A small adaptation of Captain Warren's patent can be procured of the manufacturer; it is but little larger than an ordinary fish-kettle, and will fit on the grate of a common stove or kitchen range.

The Best Covering for Kitchen Floors.—Oilcloth is by no means the best, although it is the most common covering for kitchen floors; it is impervious to air, so that if water gets underneath it does not dry up, but remains, to act in two ways; first it rots the floor, and next it causes the paint to come off the oilcloth, which is thus rendered valueless. Kamptulicon is much more useful and durable; it is made of cork and india-rubber; it is elastic to the tread, noiseless, and not liable to be affected by damp; it is rather more expensive than oilcloth, but it lasts twice as long. Another covering for kitchen floors is Parkesine, made from the bark of a shrub cultivated

largely in India, and which was at one time supposed to be suitable for paper-making. In its raw state it resembles vulcanized india-rubber, and is used for the covering of submarine cables. It can be rolled into sheets like gutta-percha, and is found to be admirably adapted for making floorcloth, which can readily be painted in colours, like oilcloth.

The Linoleum Floorcloth.—This is an admirable covering for the floors of churches, public offices, house passages, and kitchens. Linoleum is manufactured from oxidized linseed oil, mixed with finely ground cork, and rolled on to a strong canvas, which being waterproofed, will resist the action of all damp. It is made two yards wide, and can be fitted and joined together to any dimensions. In laying the linoleum floorcloth it may either be cemented at the edges, nailed, or laid down loose, and it may be rolled up and taken away at any time as easily as a carpet; but care must be taken not to roll it up too lightly, as it is very apt to crack if carelessly rolled together. The linoleum should when dirty be washed with soft soap and water, and scrubbed with a hard brush, care being taken to wipe it quite dry.

Every kitchen should have a large dresser, with two or more drawers, and at least two steady, solidly made deal tables, with drawers: a large cupboard, or two small ones, will also be found a great convenience. For roasting, a semicircular tin screen, fitted with a dripping-pan and a roasting-jack, will be found the best. A small kind of jack, called Britten's Patent Tubular Roasting-jack, has lately come into use; it is very simple in its arrangements, being merely a skein of strong silk enclosed in a brass tube, and moved by a peculiarly shaped weight; it requires no key, and cannot be put out of order by being overwound. A slight push is sufficient to set it going, and it will not stop for more than half an hour.

The Dutch oven is also very convevient for roasting a small fowl, game, or browning mashed potatoes, and heating meat. A well-arranged kitchen has a sufficient supply of utensils for cooking fish (such as a fish-kettle with drainer, a frying-pan and slice, for lifting up fish), and for meat, large and small boiling pots, saucepans and stew-pans; a digester for making soup, a steamer for potatoes, large and small frying-pans, large and small gridirons. Enamelled saucepans and stew-pans are the most expensive, but they are decidedly the best kind to buy. A large and small kettle, a preserving pan, scales and weights, plenty of spoons, knives, and forks, and, above all, a sufficiency of kitchen cloths and towels, brushes and brooms, pails and tubs. These are the principal necessaries for a kitchen, but there are very many other useful and convenient articles, that can be gradually added as the want of them appears.

Hints on Furnishing a House.—No prudent man will occupy a house, the rent of which exceeds a fair proportion of his income; neither will he neglect to study taste as well as economy in furnishing it. The best way to proceed is to obtain from respectable tradesmen those articles of furniture that are absolutely necessary, and pay ready money for them. Some house agents are also cabinet-makers and upholsterers, and will furnish a house on the plan of payment by quarterly or yearly instalments, requiring, however, either some security, or a bill of sale over the furniture. This is a bad way of encumbering a young couple; the furniture is sure to be of inferior quality and of high price. If absolute necessaries are first purchased, articles of taste and luxury can be added by degrees. A good bed and bedstead are necessaries. Iron or brass bedsteads are now much approved of, and are to be had of every price, some extremely handsome and ornamental, others plain enough to suit the humblest household. The old-fashioned feather bed has given way to the spring mattress, with a hair mattress over it; but if the feather bed be preferred, it is more healthful to have a hair mattress on the top. Witney blankets are the best,

and the finer and softer they are, the greater degree of warmth they yield; but these as well as other things must be procured according to the means of the purchaser.

Tables.—The best dining-room tables are of mahogany or oak; the best drawing-room tables of rosewood or walnut. Dining-room tables ought to be constructed of solid wood. Deal tops may be adopted when a cover is to be constantly used, and cheapness is a paramount object. The most convenient dining-tables are the telescope kind, which may be drawn out on joints so as to admit leaves or slides. The leaves are kept in a case, which, when not used, may be laid aside in the dining-room or the hall. Dining-tables should be selected with special regard to the size of the apartment. A round table is the best adapted for a small or narrow room, but a large table improves the appearance of a commodious apartment. The best and most ornamental drawing-room table is of an oval shape, resting on a carved pedestal. Large dining-rooms may contain two or more tables; these may be made of different kinds of wood. The breakfast parlour table should rest on four legs, otherwise it will become rickety. Breakfast parlours ought not to be constructed on the sunk or basement floor, as damp and the absence of light are unfavourable to digestion.

The Sofa and Couch.—The sofa, with its high ornamental back and two uniform ends, has of late years been superseded by the more comfortable couch. The best sofa or couch is stuffed with hair over spiral springs of strong wire. The couch should be covered to match the curtains and chairs, if for a drawing-room, and ought to be of either walnut or rosewood. Mahogany is used for a dining-room sofa, which is always covered with morocco leather or haircloth.

Chairs.—Dining-room chairs must be of mahogany or oak, but the latter are more adapted for the hall. Rosewood chairs are most appropriate for the drawing-room. Veneered chairs ought to be rejected. The stuffing of the seats of chairs is important; the best material is curled hair. Chairs sold in cheap warerooms are stuffed with *pob*, a composition of tow and other worthless materials. Chairs covered with American leather-cloth look well at first, but become shabby in a few months. Utrecht plush has been commended, but the best covering for chairs is haircloth or morocco leather.

Easy Chairs.—The American rocking-chair is the best adapted for invalids and persons of nervous temperament. The Derby chair has long been a favourite, and it can be procured with or without arms. Easy chairs can be had of almost every shape and at every price. They, as well as the sofa or couch, should correspond in style and covering with the style of the room they are intended to be put in.

THE BEST READING-CHAIR is one with a moveable seat, so that the person occupying it can readily turn round to speak to any one without moving the chair from its place. A reading-chair is sometimes furnished with a desk for a book, fixed to one of the arms, and a stand for a candle or lamp attached to the other. The chair with cane back and seat is the best adapted for use in warm weather.

Reading-desk. — The purpose of the reading-desk is that it may be placed on a table, and raised to any required height or angle by the frame and rack. The most convenient reading-desk is furnished with two leaf-holders of brass, made to turn on the edge of the stop-lath for the purpose of keeping the book open.

More about the Cruet-stand and Spice-box.—The same lady who overheard the debate between the various condiments (see page 8), and who prevented a recurrence of their disputes by assigning to each his proper place in either the spice-box or the cruet-stand, has, for the especial benefit of "our kitchen commissioner," written a little sketch of the history of each of the disputants,

which we now beg to present to the notice of our readers.

Cloves are the unexpanded flowers of the tree to which they belong. The name is derived from the French word signifying a nail, to which the spice bears a resemblance. The clove tree is a native of the East, but is now cultivated in the West Indies and other parts of the world. The best variety are the Amboyna cloves. This spice is largely employed in the culinary art, and is more used because of its flavour than on account of its medicinal properties, though it is an excellent stimulant.

Cinnamon is the inner bark of a tree which grows both in the East and West Indies. The best quality of this spice is scarcely thicker than paper, and is in long pieces of a light yellow colour; the dark coloured cinnamon is inferior. It readily communicates its fragrant and aromatic odour to other substances, and is thus much used by cooks and confectioners.

Cassia was believed to be the produce of a different tree from the cinnamon, notwithstanding the similitude of the odour it possesses, but it is now proved to be merely the bark from the trunk and larger branches of the cinnamon tree.

Nutmeg.—The nutmeg is a native of the Moluccas. It is largely cultivated in Sumatra, and, like some other aromatic plants of Oriental origin, it has been introduced into the West Indies. The nutmeg is the kernel found within the stone or nut of the fruit. This nut has a shining black shell which is itself surrounded by layers of the substance well known as mace. There are two kinds of nutmeg,—the one is oval-shaped, and is the produce of a wild plant; the other is nearly round, it is the produce of the plant under cultivation, and much superior to the former. The best nutmegs are hard and firm, and have a strong aromatic and agreeable odour, and a hot, acrid taste. The nutmeg is much employed as a condiment; but it is said, on good authority, to be possessed of great powers as a narcotic if taken in large quantities, on which account it ought to be used with caution.

Mace is the reddish membrane which surrounds the shell of the nutmeg.

Ginger is the tuber of a plant originally a native of the mountain of Gingi in India, whence its name is derived. It is, however, cultivated to a large extent in the West Indies. There are two kinds, known as white and black ginger, which, however, differ only in the mode of their preparation, and the latter is inferior to the former. This spice is stimulating to the digestive organs, and is not only agreeable but wholesome; nevertheless it ought to be used with moderation—an observation equally applicable to the use of any sort of spice.

Black Pepper.—This is the fruit of the black pepper vine of the East Indies. In a ground state it is understood to be almost universally adulterated. The substances employed for this purpose are faded leaves powdered, the hulls of black mustard ground, and rice reduced to a powder. The ordinary pepper of the shops does not contain more than an eighth or a sixth of genuine pepper, and the very best that is sold only one-half, the rest being ground rice or the husks of mustard. Black pepper is a powerful stimulant, carminative, and rubefacient. As a condiment it is peculiarly useful to those who are of a cold habit, or who suffer from weak digestion. Prepared Black Pepper is made by steeping the berries in vinegar for three days, and then drying and grinding them.

White Pepper.—This is merely the black pepper soaked in water till the outside skins are so soft as easily to rub off; it is greatly inferior to the ordinary black pepper, having only about one-fourth its strength, and only a mere trace of its more valuable constituents.

Allspice, Pimento, or Jamaica Pepper.—This is the berry of a tree which grows in South America and in the island of Jamaica. It is an agreeable aromatic, and has the merit of being the mildest and most innocent of the

common spices. It is much used for domestic purposes.

Cayenne Pepper is prepared from the pods of the capsicum, dried and powdered, and mixed with the powder of dried biscuits or bread in about the proportions of one ounce of capsicum powder to fifteen ounces of wheaten flour. The Cayenne pepper of the shops often contains sawdust, common salt, brick-dust, red-lead, and vermilion. The use of Cayenne pepper is sufficiently well known, and, notwithstanding its adulteration, it is employed as a condiment and as a powerful stimulant.

Kitchen Spice is made with the following ingredients well mixed together and ground:—Black pepper, 2 lbs.; ginger, 1 lb.; cinnamon, allspice, and nutmegs, each 8 oz.; cloves, 1 oz.; and dry salt, 6 lbs. It is of excellent use in flavouring soups, gravies, &c.

Salt.—Almost all the salt used in England is produced in Cheshire. At Northwich, in that county, salt is found both in hard masses called rock salt, which is mixed with earth and other impurities, and in the form of strong brine, which is pumped up and evaporated by heat in large shallow iron pans. The excellence of the salt depends on the rate of evaporation, the greater the heat and quicker the evaporation, the finer the crystals which the brine deposits. Salt is indispensable in cookery, and is the most widely used in manufactures of all condiments.

The rinds of lemon and orange may be reckoned among the aromatic condiments. They owe their high flavour to the essential oil contained in the cuticle. This flavour is communicated by putting into the ingredients to be flavoured very thin slices of the outer skin of the fruit. The oil, however, is extracted and sold under the name of the essence of lemon or orange. This preparation has the advantage of being easily kept for a long period, whereas the oil, which is a volatile, escapes from the skin as it dries.

Cement for Stoves.—Mix with water wood ashes and common salt until formed into a paste. Plaster this over the rent in the stove, and it will be effectually closed.

The Bill of Sale.—This is an instrument by virtue of which one party is enabled in a formal manner to convey to another party all the right and interest which he may have in the goods or chattels mentioned therein; such as stock in trade, the goodwill of a business, or the like. No stamp duty is payable on these documents, but in order to prevent frauds being practised on creditors by secret bills of sale, it is imperative that the bill of sale given be registered within twenty-one days after execution, otherwise it is void. The bill of sale must be attested, and the residences of the witnesses appended. The granting of bills of sale should only be resorted to in cases of extreme necessity, as the granter's credit is most seriously endangered. If, however, it be imperative, application should be made to any respectable solicitor, and he will give advice on the subject.

Accommodation Bills.—The regular bill of exchange must contain on the face of it that it is given for "value received," that is, in consideration of certain goods or chattels having been delivered to the acceptor. Accommodation, or "wind bills" as they are frequently called, are resorted to for the purpose of raising money where no value is given, but one party lends merely his name for the use of another. For example, A owes B nothing, but he accepts B's bill. In order to get the money for the bill recourse is had to C, a banker or money-lender. If A dishonours the bill C can enforce payment from B, but if this be the case B cannot recover from A if he can prove that the bill was granted without value received.

Law of Husband and Wife.—Husband and wife are held as one person in the eye of the law. In her own name the wife cannot enter into contracts; her property before marriage becomes her husband's absolutely. She may order goods and necessaries for household use; she does

so as agent for her husband, and he is bound to pay for them, while she is personally free. If she orders extravagant articles of dress, the husband is not bound for them, provided he causes them to be promptly returned. The husband may select his own residence, and his wife is bound to accompany him; otherwise he is not bound to support her even with necessaries. The wife cannot directly prosecute her husband for a maintenance, but she may order necessaries in his name, and tradesmen on suing him for commodities needful to her, will obtain judgment for payment. The wife is entitled to a judicial separation if her husband assaults or starves her, or keeps a mistress in the house.

Should a husband desert his wife, he may be treated under the Vagrant Act as a rogue and vagabond, and imprisoned in the House of Correction. A wife's earnings belong to her husband, even when he has deserted her, and her property may be seized by himself or his creditors; but by applying to a magistrate she can obtain an order of protection. A wife cannot be convicted of stealing her husband's goods. A husband and wife may be witnesses for or against other parties in civil causes. A wife cannot sue or be sued except when she has separate property settled upon her. Debts contracted by her before marriage her husband is bound to discharge. A husband may by will dispose of his entire property to strangers.

When a wife dies before a husband, he becomes entitled to nearly all her personal estate; her lands and houses held in freehold he does not acquire absolutely, but he is entitled to a life interest in them. The powers of the husband may be modified by a settlement before marriage. If married persons have been separated and have not heard of each other for seven years, they may contract marriage with other parties, without being liable to prosecution for bigamy; but the second marriage only remains valid if the lost party does not reappear.

Choice of Friends.—

"I would not enter on my list of friends
(Though graced with polished manners and fine sense,
Yet wanting sensibility) the man
Who needlessly sets foot upon a worm."
Cowper.

Friendships rapidly made are like the mountain torrent—dangerous while they last, and soon over. Beware of the man who claims your friendship on some incidental meeting long past, or who is introduced by some one of doubtful reputation. In the metropolis money-lenders get acquainted with young men of monetary prospects through the instrumentality of certain frequenters of disreputable clubs, who contrive to ingratiate themselves with those whom they are found to victimize. In London it is impolitic to associate with neighbours with whose antecedents you are unacquainted. Those we have known in early life generally prove our best friends. He is a dangerous friend who in public exposes our foibles, or allows the tongue of the detractor to fall upon us without remonstrance. When one above you in rank suddenly offers you his friendship, be on your guard, and treat his advances with caution. With persons socially beneath you, you can have no comfort in friendship; they will certainly ascribe your condescension to weakness. Be on friendly terms only with your equals. Choose no others as companions in your sports, associates at your club, and sharers at your board. When those you know have passed a probation as your acquaintances, enlist them as friends, but not sooner. The man who is deserving of your esteem visits you when sick; when adversity oppresses you is more companionable than before; and when calumny would crush you, defends you.

Choice of Servants.—This is no light concern, for our domestics make or unmake our social happiness. In reeeiving candidates for your service observe the personal appearance of the applicants. If their dress is tawdry, their hands soiled, and their toilet indif-

ferently performed, they will not suit you. Those servants who profess to do everything will seldom do much. A modest and retiring demeanour is a hopeful sign. Applicants who frankly answer questions without any apparent disguise are likely to do well. Servants who have long held their former situation may safely be engaged.

Green Pigments.—It is well known that the most brilliant greens in common use for dyeing ladies' dresses and ornaments, colouring wall papers, &c., are produced by chemical combinations into which arsenic largely enters. The danger of such substances has been frequently demonstrated. Children have been fatally injured by putting to their mouths toys painted with this poisonous colour. Wall papers coloured with arsenical pigments are by no means perfectly safe, injuriously affecting, as they are presumed to do, the quality of the air breathed in the apartment; and a lady may be said to carry about with her in her green dress arsenic enough to poison a dozen people. Chemistry, however, is likely to supply us with the means of superseding substances so deleterious as the arsenical pigments are known to be. The salts of chromium, treated in a peculiar way with certain metallic oxides, are capable, it is said, of producing a green colour of extraordinary beauty and in a state of very minute subdivision—a very important particular in the condition of all pigments.

Italian Cream.—To a pint of rich milk add as much fine white sugar as will sweeten it, the rind of a large lemon pared thin, a small piece of cinnamon, and three quarters of an ounce of isinglass; put all these ingredients into a lined saucepan and boil till the isinglass is perfectly dissolved; beat the yolks of six eggs very well in a large basin, and strain the milk while boiling hot to the eggs, stirring them rapidly all the time; continue to stir till the mixture is nearly cold; before putting it into the shape add a dessert-spoonful of strained lemon-juice; it will turn out in a few hours.

Needlework.—As the *Best of Everything*, though not unsuited for the gentlemen, will most probably be the especial favourite of the ladies of the family, it would be incomplete without a few words on what is, perhaps, the most ancient of all feminine employments—Needlework.

No art is so widely diffused, or so variously applied, as needlework. From the South Sea Islander, who sews together the skins of wild animals with needles of fish-bone, to the refined lady, whose delicate embroidery is a marvel of skill and taste, there is scarcely a woman in the world who cannot more or less make use of a needle. In feudal times needlework was considered the occupation of the highest classes. The châtelaine of the castle sat in the inner hall, or in the ladies' withdrawing-room, surrounded by her maidens, many of whom were of rank little inferior to her own, but whose parents sent them to be instructed in the culinary and medicinal arts, and in needlework, under the lady of their chief, as their brothers were sent to learn the use of arms under her lord; each maiden had her appointed task of spinning, or weaving, or embroidery, and the lady kept strict watch that the tasks were completed in a suitable manner.

Many English queens were noted for their proficiency in this art. Matilda, queen of William the Conqueror, assisted by her maidens, worked the famous Bayeux tapestry, which is still to be seen in the Town Hall of that city. The work executed by many of our queens is still preserved, as well as some done by the unfortunate Mary of Scotland and by Marie Antoinette of France. In the turbulent times of the Middle Ages the knowledge of embroidery and lacemaking was preserved in the religious houses, where the nuns employed themselves in making the gold and silver embroidery of the priests' vestments, and the rich lace of the altar-cloths, which formed so valuable a part of the spoils when these houses were destroyed in England and France.

The Oriental nations are particularly skilled in various kinds of embroidery, and have been so from a very remote period. We read of the hangings of the door of the tabernacle being made of "blue, and purple, and scarlet, and fine twined linen of needlework." The Chinese and Japanese are famous for their embroidery in gold and silks on various materials; satin, crape, and undyed silk are the principal; the full dress of the Emperors and their courts are masses of gold embroidery. The East Indians execute very beautiful embroidery in the style called satin-stitch, with cotton on muslin of cobweb texture, finer and softer than any machinery can produce in this country. They also embroider in gold and silver the beautiful Delhi shawls and Decca muslins. The Persians, Circassians, and Turks all excel in embroidery; even the squaw of the North American Indian ornaments with beads and stained porcupine quills, belts, pouches, and moccasins of soft deerskin, and she works in the same manner pretty boxes and baskets of birch bark.

Needlework in the present day may be divided into plain and fancy needlework. Plain work, which used to occupy so much of the time and attention of the females of every family, and the labour of which was so very ill-paid when done by a seamstress as to call forth Hood's pathetic "Song of the Shirt," is now from a toil converted into a pleasure by the invention of the Sewing Machine, which, with very little exertion, will complete a garment in one-fourth of the time, and with thrice the neatness that the human fingers could accomplish the task.

We propose to give a short account of the sewing machine in our next number, and to follow it up with simple directions for the several kinds of fancy work—tatting, netting, crochet, &c.

New Style of Charade.—As charades are a most amusing and innocent pastime, and a great favourite among the juvenile branches of a family, we present our young readers with the four following examples, as being at once novel and very easily performed.

No. 1. Get a common rocking-horse, which you can buy at any toy-shop for 1s., and put it in front of the stage, facing the audience. When the curtain rises, invite the company to find out which of the islands in the Greek Archipelago the horse represents. The answer is DELOS—*deal 'oss*—deal horse.

No. 2. Reverse the position of the horse, and when the curtain again rises, ask the company to find out any other island in the Greek Archipelago the horse represents. The answer is SAMOS—*same 'oss*—same horse.

No. 3. When the curtain rises, a young lady is discovered standing alone. Presently an elderly gentleman enters, to whom she says, "Good morning, doctor," and they retire. Ask the audience to say what single word represents the scene. The word is METAPHYSICIAN—*met a physician.*

No. 4. Once more the curtain rises, and the old gentleman and young lady enter, and looking at each other for an instant, they bow and retire. The company are again to be invited to find out a simple word representing this scene. The word is METAPHOR—*met afore.*

By a little exercise of the inventive powers this description of charade may be multiplied to any extent, and it possesses this advantage over the ordinary acting charade, that it neither requires a company of performers, scenery, nor rehearsal.

Cement for Rooms.—M. Sarel, of Paris, has made an invention which is pronounced better than plaster of Paris for coating the walls of rooms. It is used thus:—A coat of oxide of zinc, mixed with size, made up like a wash, is first laid on the wall, ceiling, or wainscot, and over that a coat of chloride of zinc applied, prepared in the same way as the first wash. The oxide and chloride effect an immediate combination, and form a kind of cement, smooth and polished as glass, and possessing the advantages of oil paint without its disadvantages of smell.

Hints on Sea-bathing.—It is a question of very eonsiderable importance at what time of day bathing in the sea ean be had reeourse to with the most favourable results. Undoubtedly it ought to be done at the period when the system is least liable to be depressed—early in the morning, and before breakfast. Those who are in robust health may generally bathe in the open sea early in the morning, but even they, espeeially if unaceustomed to bathing, are liable to be depressed by a eold bath taken at that time. As a general rule, however, all invalids and delicate persons should avoid bathing before breakfast. Due time also should be allowed for the digestion of a meal, as any strong impression on the mind or body is liable to arrest or destroy digestion. Two hours should be allowed to elapse after breakfast, and three after dinner, before bathing. It is better to bathe in the sea after breakfast than later in the day. As to ehildren, they should never bathe before ten or eleven o'clock. The patient should plunge at onee into the water, and not stand shivering till the body is ehilled. He should dip down and allow each wave to pass over him.

As to the period of the year most suitable for sea-bathing, May and September are good months if the patient is not debilitated, and a shore should be preferred where the billows are rough. On the other hand, if the patient be weak or depressed the summer months are preferable, and a ealm sea. The hair frequently falls off at the eommencement of bathing, and causes some alarm to the patient; this alarm, however, may be set at rest by the assuranee that the hair will grow more luxuriantly than before. If the patient be weak he must not indulge in much physieal or mental exertion after his bath, as such exereise is apt to produce overfatigue. Horse exercise is good, as this does not eall for much exertion, but if the patient is weak, earriage exercise is to be preferred. The foregoing hints, being derived from the authority of the *Medical Times*, merit special notiee.

To Restore the apparently Drowned.—The leading principles of the following directions for restoring the apparently dead from drowning, are the results of extensive inquiries made by the Royal National Lifeboat Institution throughout the United Kingdom:—

1. Send at once for medical assistance, blankets, &c.; but meanwhile treat the patient instantly, placing the faee downwards, exposing the face, neck, and breast to the air, and removing all tight clothing. The efforts to restore breathing must be persevered in for hours, or until a medical man has pronouneed life to be extinct. Efforts to promote warmth and circulation must not be made until after the first return of natural breathing.

2. To Restore Breathing.—While the patient is lying with the face downwards, plaee one of the arms under the forehead, as in this position fluids will more readily escape by the mouth, and the tongue itself will fall forward, leaving the entranee to the windpipe free. Assist this operation by wiping and eleansing the mouth. If there be only slight breathing or no breathing, turn the patient on the side, and exeite the nostrils with snuff, hartshorn, or smelling salts, or tickle the throat with a feather, &e. Rub the chest and face well, and dash warm and cold water alternately on them. If there is still no success, try to *imitate* breathing by replaeing the patient with faee downwards, raising and supporting the ehest on a folded eoat or other artiele. Then turn the body very gently on one side and a little beyond, and briskly back again, repeating these measures eautiously and perseveringly about fifteen times a minute, oeeasionally varying the side. *By placing the patient on his chest, the weight of the body forces the air out. When turned on one side the pressure is removed, and air enters the chest.* When the body is replaced on the face, use uniform pressure between the shoulder-blades or bones on each side, and let one person attend solely to the movement of the head and of the arm placed

under it. Dry the hands and feet, and as soon as dry clothing or blankets can be procured, strip the body and reclothe it, taking care not to interfere with the efforts to restore breathing.

3. Should these efforts not prove successful in five minutes, grasp the arms above the elbow, and draw them gently upwards above the head, keeping them stretched upwards for two seconds. *By this means air is drawn into the lungs.* Then turn down the arms, and press them gently for two seconds against the sides of the chest. *By this means air is pressed out of the lungs.* Repeat these motions perseveringly, about fifteen times in a minute, until a spontaneous effort to respire is perceived.

4. After the natural breathing is restored, promote warmth and circulation by rubbing the limbs upwards by means of flannels, &c. *By this process the blood is propelled towards the heart.* Apply hot flannels, or bottles of hot water, to the pit of the stomach, the armpits, thighs, and soles of the feet. If the power of swallowing be restored, small quantities of wine, warm brandy and water, or coffee, should be administered. Keep the patient in bed, and let sleep be encouraged. This treatment should be persevered in for hours, as it is a mistake to fancy that persons are irrecoverable because life does not soon make its appearance. Do not allow any crowding round the body, and under no circumstances hold it up by the feet, or put it in a warm bath, unless under medical directions.

5. The appearances which generally accompany death by drowning are suspension of the motion of the heart, the eyelids half closed and the pupils dilated, the jaws clenched, the fingers half contracted, the tongue approaches to the under edges of the lips, and these as well as the nostrils are covered with a frothy mucus, and coldness and pallor increase.

The Cold Bath.—Temperature 35 to 65 degrees. The application of cold water to the surface of the body is attended with an immediate tonic effect. This is evident from the glow which takes place and the sense of renewed strength indicating an increased action in all the vessels of the system. The application of the cold water possesses the power of contracting the solid parts of the body, and this contraction is followed by a reaction in which the nerves, bloodvessels, and all the organs of the system are excited to a more healthy and energetic performance of their functions. The best method of taking a cold bath is in the sea or in a river, and it is well not to protract the process, since the benefit derived depends on the first impression the cold water makes on the skin and nerves.

The Shower Bath.—The shower bath is most useful when there is any determination of the fluids to the head. Several other reasons may here be stated for the superiority of the shower bath. The sudden contact of the water which in the ordinary cold bath is but momentary, may in the shower bath be prolonged, repeated, and modified at pleasure. The first shock is received on the head, and the blood is therefore impelled downwards; the shower bath descends in single streams and drops, and for this reason is more stimulating and pleasant than immersion in cold water. It is indeed an indefinite repetition of the one single effect produced by a plunge into cold water, and it is easily procured and readily adapted to the circumstances of the patient.

The Tepid Bath.—The water for this bath ought to be from 85 to 95 degrees of the thermometer. The tepid bath has much efficacy in reducing the general excitement, lessening the pulsation in fevers, and is of great service in pregnancy and infancy. It is also very important in complaints of the stomach and liver, in the debility produced by long residence in hot climates, in the languor and weakness accompanying delicate habits, and in gout, rheumatic affections, and cutaneous diseases. It is admirably adapted for persons in advanced life. The best period for the bath is the morning, between ten and twelve o'clock.

The Warm Bath.—For this bath the

water should be from 93 to 98 degrees of heat. It is of great utility in a variety of ailments, such as inflammatory and rheumatic affections, diseases of the skin, intestinal obstructions, nervous irritation, and debility, whether constitutional or arising from previous illness, intemporance, late hours and hard study, or irregularity in diet or exercise. Women, who are delicate, weak, and nervous, may, with much confidence, expect relief from the use of the warm bath. If the warm bath is not intended to produce perspiration, it can properly be used at any time from an hour after breakfast till dinner, but if increased perspiration be the object the evening is the best time for this bath, and the patient should be conveyed from the bath to a warm bed.

The Hot Bath.—Temperature 98 to 104 degrees. Bathing in tepid and warm water has a sedative effect. It excites the sensation of heat, lowers the pulse, relaxes the skin, diminishes excitement, and proves eminently refreshing. On the contrary, hot baths are stimulating; they quicken the action of the heart, redden the skin, make the respiration more frequent, and produce copious perspiration.

The Vapour Bath.—100 to 115 degrees. This species of bath is recommended for the same classes of ailments for which the warm bath is applicable, and it has not unfrequently succeeded in producing the desired effects when warm bathing has failed to do so.

The Turkish Bath.—The merits of the Turkish bath as a remedial agent have been a subject of discussion for some years, and the number of its advocates who believe it to be a perfect panacea for all human ills is very considerable. Public Turkish baths have been established in most of our principal cities, replete with every convenience for carrying out their peculiar system in a luxurious manner; but as it is often inconvenient and disagreeable for an invalid, particularly a lady, to attend these public baths, a portable Turkish bath has lately been invented, which can be carried about in a portmanteau, being no more than five inches in height, and it can give a vapour bath of half an hour's duration. It consists of a circular tin chamber fitted into an upright stand, under which is a small spirit lamp. In the chamber or boiler lid are three small tubes; the boiler being filled with water and the lamp lighted, as soon as the steam gets up it rushes through these tubes. The patient is seated on a cane chair, with the feet in a pan of warm water, and having a kind of cloak (which can be purchased with the boiler) tightly fastened round him; in a very short time both the patient and chair are enveloped in a cloud of steam. Ten minutes is the time recommended for the duration of the first few baths; it may be afterwards increased, but not beyond half an hour. On getting out of the cloak, plunge into a cold bath for a few minutes, then rub the skin till it is quite dry and glowing with a coarse towel and a pair of goat-hair gloves. This bath is very inexpensive; the whole apparatus, with cloak complete, can be procured for a guinea, and the boiler and lamp can be had separately if desired.

Cement for Cisterns.—Take equal parts of red and white lead, and wash them into a paste with boiled linseed oil. It hardens slowly, but afterwards acquires a flinty hardness. When applied it should be made thin, and the metal thoroughly smeared with it.

To Remove Fruit Stains from Linen.—With yellow soap rub the stained spot on both sides, then lay on a thick mixture of starch and cold water; rub this mixture of starch well in, and expose the linen to the sun and air till the stain disappears. If not removed in three or four days, let the process be repeated.

To Remove Mildew.—Mix soft soap with powdered starch, half as much salt, and the juice of a lemon; lay the mixture on both sides of the stain with a painter's brush; let it lie on the grass day and night till the mildew mark disappears.

New Mode of treating Whooping-cough.--The attaek generally begins as a eommon eold, with slight feverish symptoms. In eight or ten days the fever partially subsides, and the child gets attacks of eonvulsive coughing, aeeompanied by the peculiar "whoop" whieh gives the disease its name. The number of attaeks varies from one or two to ten, or even fifteen, in the twenty-four hours, according to the severity of the disease. The ehild should be kept in a warm room. He ought to be elothed in flannel; his diet should be light and nourishing, such as fish, milk, light puddings, and new-laid eggs.

The following prescription is strongly recommended by Dr. V. Mott, of New York:—

Hydroeyanie aeid . .	6 drops.
Extract of belladonna .	2 grains.
Paregoric elixir . . .	3 draehms.
Syrup of balsam of Tolu	1 ounce.
Water	3 ounces.

Mix. One teaspoonful three or four times daily.

When the severity of the disease has passed off, change of air will be found most useful; and if the child has beeome debilitated, tonics with nutritious diet should be given.

This disease being very infeetious, great eare should be taken to prevent communieation of any kind with houses where there are ehildren who have not already had whooping-cough.

Sprains of the Wrist, Ankle, &c.—As soon as possible after the aeeident get a ealico bandage one to two yards long, and two to two and a half inehes wide; wet it in eold water, and roll it smoothly and firmly round the injured part. Keep the limb at rest, exposed to the air, and continually damp with eold water. The sooner after the aecident the bandage is applied, the less pain and swelling there will be; but if pain beeomes exeessive, care must be taken to slightly loosen the bandage.

Fainting Fits.--Young females of a nervous and delieate eonstitution are often subjeet to these attaeks. Debility from any cause, strong emotion, severe pain, loss of blood, and diseases of the heart, are all eauses of fainting. Place the patient on her back, with the head low, loosen all elothes about the neck and chest, sprinkle cold water on the face, and apply smelling salts to the nostrils. When the patient can swallow, give some cold water, with 20 or 30 drops of sal volatile, or a little brandy.

The Poultice, or Cataplasm, is an external applieation of great value. It aets as a loeal stimulant; it allays irritation, exereises a soothing influenee, and in several ailments is highly beneficial. The objeet of it is to apply to the skin eontinued heat and moisture, and it may be made of bread-crumb sealded in water, linseed boiled to the eonsistenee of porridge, or sueh other substances as retain the heat. A poultiee properly applied, and frequently renewed as it loses its heat or moisture, is often of great use by itself; but its value is frequently enhanced by its being made the means of applying to the skin on whieh it is placed some substances known to have a speeifie aetion.

Charcoal Poultice.—Linseed meal, half a pound; eharcoal powder, 2 ounees; hot water sufficient to give it the necessary eonsistenee. This poultice is highly antiseptie; that is to say, it has great power in eleansing uleers, and eorrecting a tendency to mortifieation. The power is derived from the charcoal, which is remarkable for its purifying energy.

Yeast Poultice.—Flour, one pound; yeast of beer, half a pint. Mix, and expose the mixture to a gentle heat till it begins to swell, when it is ready for use. This poultiee is well adapted as an application to painful, foul, or gangrenous ulcers. It is a gentle stimulant to sueh ulcerations, corrects any tendeney to mortification, eleanses the sore, and removes the fœtid odour.

Hemlock Poultice.—Pour two pints of water on two ounees of hemlock leaves, boil it down to a pint, and add as mueh linseed meal as may be neeessary for the due consisteney of the poultice. This is an excellent applica-

tion to cancerous and other malignant sores. It greatly diminishes the existing pain. The fresh herb forms the best poultice.

Goulard's Poultice.—It is thus made:—Take a drachm and a half of extract of lead (in the language of the apothecary, liquor plumbi acetatis); rectified spirit of wine, 2 ounces; water, 12 ounces; bread-crumb, sufficient to make the whole into a proper consistence. This poultice is an excellent application to reduce swelling and inflammation, and to allay irritation.

The Spongio-piline.—This is the name of a very ingenious contrivance, which may be used either as a poultice or as the means of fomentation. It consists of wool and small particles of sponge apparently felted together, and attached to a skin of india-rubber. It is about half an inch in thickness. It will be found of great value and convenience for either of the purposes referred to. It retains heat for a considerable time; and vinegar, laudanum, camphor, hartshorn, &c., can be by its means placed on the skin, accompanied by heat and moisture, much more readily and with greater cleanliness than by means of ordinary poultices. It can be procured at the druggists.

Fomentations.—In domestic practice hot fomentations are, although a simple, yet a very useful remedy for allaying pain, relieving irritation, relaxing and removing spasms, and inducing not only local, but even general perspiration. Cloths dipped in very hot water wrung out and instantly applied on the seat of the pain will be frequently of very great service. But in some cases it adds to the efficacy of the application to employ substances possessing medical properties in addition to the mere application of heat.

Anodyne Fomentation. — White poppy heads, 3 ounces; elder flowers, half an ounce; water, 3 pints. Boil until the liquor is reduced to two-thirds of its original quantity, and strain it. Two or three teaspoonfuls of tincture of opium or laudanum may in some cases be added to it. This fomentation relaxes spasm, and relieves acute pain.

Fomentation for Ordinary Occasions.—Dried mallows, 1 ounce; chamomile flowers dried, half an ounce; water, 1 pint. Boil for a quarter of an hour, and strain the liquor.

Strengthening Fomentation. — Decoction of oak bark, 2 pints; alum, 3 drachms. Mix. This is a powerful astringent, and often of great use when applied to weak parts. It is not requisite to heat the liquor.

To Cure a Smoky Chimney.—Prevention is better than cure. If you build a house, contract the space above the fireplace, which will promote a draught and prevent the return of the smoke downward. A house in the neighbourhood of a lofty building or a church will most probably have smoky chimneys. Straight funnels do not draw well, and it is essential that the funnel should be of considerable length. The modes of curing smoky chimneys are various, and depend on the circumstances of each particular case.

Some years ago the writer was on a visit at the house of a wealthy friend in one of the midland counties. For a length of time the drawing-room of the mansion had acquired a habit of smoking—perhaps in imitation of the master of the house, who was a smoker,—but no efforts could cure the chimney. The drawing-room, a magnificent apartment, had two fireplaces, but by no stretch of ingenuity could two fires be kept up at the same time. If a good fire blazed in one grate the other was sure to smoke. Chimney-sweepers, masons, and blacksmiths were employed to no purpose. New chimney cans, long pipes of iron, revolving ventilators, &c., were all tried in vain, until at last the family, giving up all hope of cure, resolved that only one fire should be maintained at a time. As it was winter during our visit, and there was to be a large party at the house, it became desirable to have two fires in the drawing-room, and the author, who was presumed to know something of pneumatics, was requested to suggest a remedy. He perceived

that either one chimney or the other served as a pipe to convey the outer air into the room to supply the fire best lighted. He therefore suggested that a few holes should be bored from beneath each grate to the external air. This being done, the cure was completed at a cost of less than a hundredth part of the expense already incurred.

The chimney cans used in the metropolis are different forms of tin cowls fastened on the chimney-pots, and made to revolve, so that the mouths always presents themselves in the direction of the wind. A correspondent of the *Builder* asserts that every smoky chimney may be cured, and that chimney-pots may be dispensed with by applying fine wire gauze of about forty wires per inch in front of the fireplace, as the atmospheric pressure prevents the smoke from penetrating the gauze. The gauze should be kept two inches distant from the fire-grate.

Cecils: an Excellent Way to use up Cold Meat.—Mince 1 lb. of cold beef or mutton with ¼ lb. of beef suet, ¼ lb. bread crumbs; season with pepper, salt, mace, Cayenne, a tablespoonful of Worcester sauce, and the same quantity of mushroom catsup; mix all well together with three eggs well beaten, form into small cakes or balls, fry of a nice brown, and serve with a rich brown gravy. These cakes are very nice if made with well-boiled rice instead of bread crumbs, particularly if the meat is veal or lamb; they are then called "Dormers." Cold fish or kippered salmon cooked in a similar manner, with potatoes in place of the rice or bread crumbs, and with anchovy sauce and hard-boiled eggs chopped small, is extremely good and savoury.

To Repair Broken China or Glass.—The method of drilling holes and introducing rivets, can only be properly executed by those whose business it is. Broken glass or china can be united with the juice of garlic. A useful cement is produced by powdered chalk and white of egg. A mixture of equal parts of white of egg, white-lead, and glue, forms a strong cement. The *diamond cement* of the chemists is prepared thus:—An ounce of isinglass is dissolved in two wineglassfuls of spirits of wine, to which is added a small quantity of dissolved gum-ammoniac. It is applied with a hair pencil.

Best Advice upon Matches.—There was a house—and attached to the house a coal-cellar. "What a stupid and commonplace way by which to commence an essay!" the reader will possibly exclaim. But herein lies the very art and cunning of our device. It is true there have been, and are, millions of houses with coal-cellars attached. We have no intention of naming the particular city, town, or street in which the house we refer to stood or stands; we shall not hint at the number on the door, nor give the slightest clue to the style of architecture. All we shall do is to exercise our ingenuity in constructing a story "founded upon fact;" and we must leave the reader to discover whether it was in his or her house, or in a neighbour's dwelling, that the circumstances narrated took place. One possible misconception we must guard against; we are not going to speak of "love matches," but of matches in some sense resembling them in their warmth, and the direful consequences which result when hastily and thoughtlessly managed.

We repeat: there was a house, and attached to the house a coal-cellar. One day the coals had become so low that the servant, having in vain groped about in the dark, and struck out in various directions without being able to find enough to replenish a rapidly failing fire, stepped back and fetched a box of lucifer matches. Igniting one of these she held it in one hand, dropped the match-box, scraped up a small supply of coals, and ran to the room where the fire was fading, slamming the door of the cellar after her.

Now there had lain within that cellar, for a quarter of a century or more, a small round tin box, with a circular handle and a moveable lid. But the handle had been broken off, the lid had vanished, no one cared how, and the

sides of the box had become beaten and bent out of all symmetrical shape. For whenever the coals were pitched into the cellar, the poor old box came in for a series of knocks and thumps, and sometimes lay for a month or more under a most oppressive weight, until the falling short of coals again brought him to such dim light as the cellar afforded. A piece of steel, formerly companion of the box, endeavoured to make his escape, and in doing so had become jammed in a crevice between the bricks, and there remained browned by rust. A piece of flint, also a former companion, had by misadventure been taken to the parlour with the coals, where, being cast into a brisk fire, he made such a furious crackling and jumping of hot cinders, that he frightened a whole family, put Paterfamilias out of temper, made his spouse resolve to change their coal merchant for "sending in such rubbish," and drove a group of children into the furthest corner. This may be understood as a piece of revenge upon the part of flint, on account of the long neglect himself and companions had endured. And we fancy there may be found certain historical precedents in which disappointed courtiers and politicians have resorted to similar acts of rebellious disturbance.

The box alluded to was a "tinder-box," that had been a great domestic favourite in his time — had been in service, in fact, for scores of years, and himself and family had always borne reproachless characters. The flint and steel had been his companions in service, and they had felt the grievous annoyance of being suddenly cast out of favour by the introduction of new-fangled Matches, under various names. They had never, however, found an opportunity of expressing their wrongs until the present. When the door of the coal-cellar slammed, the shelf upon which the maid had placed the matches shook, and down fell the Match-box, half full of lucifers, right into the grasp of the old Tinder-box!

Now, reader, if you had been suddenly dismissed from long-established love and favour, driven from honourable and useful employment, separated from your companions, and you and they cast into dark and endless confinement, and all of a sudden you found your hated rival thrown by accident into your power, wouldn't you tell him a bit of your mind? Then you may fancy that the old Tinder-box said pretty nearly the "best of everything" he could say, under the circumstances; and we now have to report the following dialogue:—

"Ah!" said the old Tinder-box, "so you have come here at last, mischievous coxcomb, supplanted no doubt, in the fickle regard of the public, by some new hobby, perchance more fiery and treacherous than yourself!"

"What!" replied Lucifer, "is that you, my venerable old strike-a-light? I have often heard of you, but never espied your quaint visage before. Don't be angry, old friend, though you were voted too slow for the increasing requirements of a busy world. It was not I that supplanted you, but your own dulness and stupidity that extinguished yourself, and caused you to be exiled."

"Dulness and stupidity! If you mean that I did not lurk in secret corners, and take the earliest opportunity of becoming an incendiary, then I admit I must have been too slow. Why, your breath now is now charged with fumes of phosphorus, that fiery distilment of calcined bones which, despatched as an emissary of death, is ever seeking fresh victims."

"Fresh victims! Do we not lend our aid to the illumination of night? Do we not kindle fires that are a source of domestic comfort? Is it not our spark that lights the furnaces of science, and invokes the grand element by which the engines of commerce are set in motion? In your day the world was half asleep, and yourself a fitting emblem of its drowsiness. Click, click, went flint and steel; then sparks darted into the air, anywhere but where they were needed; when at last one fell upon the sooty bed of tinder, then the mouth had to be applied to puff it into sufficient strength to ignite a match, while the

face of the operator became lurid with the flame, and his throat irritated by the fumes of sulphur, his nose becoming speckled with blacks, as if a squib had burst before his face!"

"All that you do which is useful," said the Tinder-box, "I in my time did. But go on and say what else you do. Say that you spontaneously ignite and kindle the flames of death beneath the bed of the innocent sleeper; say that in the warehouse of the merchant you creep in among the wealth accumulated by his enterprise, and reduce his heaped-up stores to ashes; say that you lie about the thoroughfares of the household, and flash fire under the footfall of parent or child; say that in streets and railway carriages you recklessly fling your fizzing atoms, setting in flames the robes of women, and scorching holes in the clothes of men; and say that, like snakes, with venom in their heads, you poison little children who, attracted by your looks, make you their playthings."

This was pretty forcible language, coming from the old Tinder-box; and if the "scrape" which the Lucifer had got into had been a literal instead of a figurative one, he would have ignited. But he remained quiescent for a time, and then somewhat respectfully addressed the old Tinder-box:—"Father, we are not so bad as we seem. We are but servants, subject to control. If misdirected and mismanaged by our employers, we, like other servants, take liberties and engage in mischief, instead of performing our lawful duties. Perhaps the spirit of improvement which caused you to be superseded may yet introduce something to modify the dangers of which you speak. Already something has been accomplished in this way by the introduction of matches which do not unite all the elements of ignition in one substance, a part of them being embodied in the match, and another in the paper upon the box to which the match is applied. Thus neither can well ignite without the other, and a greater degree of safety is therefore attained."

"Ah! ha!" exclaimed Tinder-box, "that's reverting back to my old form. Without flint and steel there could be no spark; without tinder the spark would be of non-effect, and without an act of will on the part of the operator a light could not be struck; therefore dangers were diminished. But now, to show you that I bear no prejudice against matters of progressive improvement, I will sing you a song as applicable to yourself as to me:—

If you are given to proud aspiration,
  Pursue your own way, leave your neighbours alone;
Some of your brethren may seek admiration;
  Hinder not their course, but 'strike on your own!'

Envy and malice the world's peace consuming;
  Brighter the day when good-will shall be known;
Instead of to cure others' failings presuming,
  More certain your aim if you 'strike on your own!'

Every one's mind some life-sparks should render;
  Every one's breast should to love's warmth be prone;
The greater the honour, and richer the splendour,
  If, delving heart-treasures, you 'strike on your own!'

Here a bell rung; it was answered by the servant going to the drawing-room. "Mary," said the housewife, "where are the lucifers? it is getting dark, and time that the gas should be lit." Mary ran up and down stairs, but nowhere could she find the matches. The bell rang again, and Mary was at last compelled to admit that not long ago she had used the matches, but had no recollection where she had placed them. "Think, Mary," said the housewife, "of all the apartments in the house where you have lately been, and search them carefully." Following this instruction, Mary, in course of time, found her way to the coal-cellar, and by a faint gleam which just enabled her to discern a small light-coloured object lying upon a dark body, she discovered the box of matches lying half open, in the midst of the old tinder-box. The gas was at length lit, but not before the

master of the house had returned from the City and complained of the want of light. It was a singular coincidence that, having frequently noticed the carelessness of servants in the use of matches, he had on this very day brought home half a dozen tin boxes, to be nailed to the wall in those parts of the house where matches were most commonly needed, so that they might not be carried loosely about and left in situations that might lead to danger. Among other admonitions addressed to the servant, the master said that several large firms in England produce 10,000,000 of matches daily; that every single match possessed within itself a latent power for good or evil—a terrible power of evil, an important element of good; but the good or evil depended upon careful and proper use. That the matches purchased of venders in the streets, and miscalled "charity matches," are the most dangerous, since they consist of the refuse produce of manufacturers, the ingredients being badly mixed and highly inflammable; they are, therefore, sold to street hawkers at a cheap rate, either without the maker's names being attached, or with a false label used as a disguise. That phosphorus is liable to spontaneous ignition at a very low temperature, and that it is also a powerful poison, many children having lost their lives by putting the phosphoric ends of matches into their mouths.

The precautions thus indicated should be carefully and constantly observed in every household,—and it will be found that our article, commenced with simplicity, has led to the suggestion of the "Best Life Preserver," the "Best Fire Escape," the "Best Humane Society," through THE PREVENTION OF CALAMITY BY THE EXERCISE OF PRUDENCE.

To take out Iron-mould or Ink Stains from Linen.—Place the linen over a basin containing boiling water, strain it tight, and wet the stain with water; then carefully drop on it a few drops of diluted spirit of salt from a feather or hair pencil; wash carefully in clean water when the stain has disappeared; or use the common salt of lemon, to be had at any chemist's. A more convenient mode of removing the stain is to use an ink extractor, which costs but sixpence, and takes out the mark perfectly, without any detriment to the linen.

A simple method of removing stains from linen is this:—Dip the linen in sour buttermilk and dry it in a hot sun; then wash it in cold water and dry it two or three times a day.

Coaguline is the best preparation for cementing every description of article. It is applied in the simplest manner, and is possessed of an extraordinary tenacity. Coaguline may be used most effectually in repairing plates, mugs, lamp-glasses, cabinet ware, papier-maché, statuary, and plaster models. It can be procured at 6d. per bottle, and should be used in every household.

The Game of La Crosse.—This game, which has been known in Canada from time immemorial, was introduced into this country by the American Indians, who appeared at the Crystal Palace in 1867. As a form of athletic exercise, as well as a most interesting game, it is not only equal but superior to many of our most popular gymnastic sports. It is easily described. Goals are fixed upon, as in the game of football, at distances from 150 to 200 yards apart. The "field" consists of twelve players on each side, and these are spread over the space to be played upon as goal keepers. The ball, which is about the size of a billiard ball, is thrown from the centre of the field, and the player must scoop it from the ground with his "crosse," and carry it at full speed to the goal; the adversary, however, makes it his business to strike the ball from his opponent's crosse with his own; the player, too, has the power to throw the ball from his crosse towards his goal.

Such of our readers as have not seen the game played may readily imagine how much activity and address it demands. The surface of the crosse is quite flat, nevertheless the ball must be kept on it while the player is running at full speed, or discharged

from its surface towards the goal. The admirable exercise which this game affords, the manner in which it tends to strengthen and develop the muscles, the dexterity to which it leads, and the singular graces of figure and attitude it frequently calls forth, all combine to render it likely that La Crosse will ere long become one of the best and most popular of our outdoor games.

Whist.—In the following account of this celebrated game, which, by special permission of Messrs. De la Rue and Co., is partly abridged from the admirable Treatise on Whist by "Cavendish," we think it desirable to take it for granted that the reader is not unacquainted with the elementary principles of whist. We shall, therefore, set forth as succinctly as possible the laws of the game, adding some hints and maxims likely to be useful.

The Laws of Whist.—The following particulars must be observed:—

1. The Rubber is the best of three games, and if the same players win the first two games, the third is unnecessary.

2. Scoring. A game consists of five points, and each trick above six counts one point. Honours are the ace, king, queen, and knave of trumps. Holding the four honours entitles a player to score four points; three honours give him a right to score two points; if, however, he and his partner hold only two honours they do not score.

3. Cutting. The ace is the lowest card. Each must cut from the same pack, and if a player exposes more than one card he must cut again.

4. The Table. In forming the table the players are selected by cutting, if there be more than four candidates. The four who cut the lowest cards play first, and they cut to decide on partners; the lowest two play against the highest two. The lowest is dealer; he has the right to choose cards and seats, and must abide by any choice he makes.

5. Cards of equal value. If two players cut cards of equal value, they must cut again to decide who deals, unless the two cards are the highest two.

6. Shuffling. The pack must neither be shuffled so as to show any card, nor must it be shuffled below the table, nor during the play of the hand, nor by dealing it into packets, nor across the table.

7. The Deal. Each player takes his turn in dealing. In certain circumstances, such as the discovery of an error or mistake, a new deal becomes requisite.

8. Cutting out. If at the end of a rubber admission be claimed, the person or persons who have played the greater number of consecutive rubbers are out; if all are equal in that respect the decision must be made by cutting, and the highest are out.

9. The Trump Card. When it is the dealer's turn to play to the first trick, he should take the trump card into his hand; it is liable to be called if left on the table after the first trick is turned and quitted. It cannot be asked for after the dealer has taken it into his hand. If he takes it into his hand before it is his turn to play he may be desired to lay it on the table; if he show a wrong card this card may be called, and then a second and third, &c., till the trump card is produced.

10. Cards liable to be called are such as are exposed, and cards are so named under various circumstances, viz., if exhibited accidentally to other players; if two or more played at once; if a card be dropped on the table face upwards, &c.

11. Error in play. If the third hand play before the second, the fourth may play before his partner; and if the third hand have not played and the fourth play before his partner, the latter may be called on to win or not to win the trick.

12. The Revoke. This is that a player holding one or more cards of the suit led, plays a card of a different suit; the penalty for this is that the adversaries shall at the end of the hand either take three tricks from the revoking player, or deduct three points

from his score, or add three to their own score.

Technical Terms in Whist.—

1. To command a suit is to hold in it winning cards sufficient to make every trick.

2. A long suit is one which is numerically strong.

3. To renounce is not to follow suit, and the card played in renouncing is called the discard.

4. A sequence is a succession of cards in their playing order.

5. Tenace. A player is said to have a tenace when he holds the best and the third best cards.

6. A finesse is an endeavour by the second or third player, by heading a trick with an inferior card, to obtain or keep the command of a suit.

7. A cross-ruff is the alternate trumping by partners of different suits.

8. A forcing card is that which compels one of the players to trump in order to win the trick.

9. Plain suits are not trumps.

General Rules and Maxims in Whist.—1. Strong suits are those in which the player holds more than the average of high cards, and those in which he holds more than an average number of cards. 2. The player ought to lead from his strongest suit, and that which is the most eligible is the suit which combines both the sources of strength referred to. 3. A weak suit is to be led from only when the previous fall of the cards indicates that perseverance in your own or your partner's strong suit is not judicious. 4. When obliged to open a suit containing at most three cards, lead the highest. 5. In leading from a weak suit, do not lead a suit from which your partner has thrown away, nor one from which your left-hand adversary has thrown away, nor a suit which your right-hand adversary has abstained from throwing away. 6. Lead the highest of a sequence if the sequence heads your suit, and the lowest if it does not. 7. Avoid changing your lead from one suit to another. If you lose the lead and afterwards regain it, pursue your first lead. 8. Lead the winning card, if you have it, after the first round of a suit. If you remain with the second and third best, lead the second best; in other cases continue with your lowest. 9. Return your partner's lead unless your own suit combines the two kinds of strength already referred to. 10. In returning your adversary's lead choose a suit in which the fourth hand is weak rather than one in which the second hand is strong; if you have but two of the suit left in your hand return the highest, if more than two the lowest.

Practical Hints on Whist.—1. In dealing, point the cards downwards. 2. In sorting the cards, give no clue to the contents of your hand. 3. Do not let your hand be overlooked. 4. In playing, have no hesitation, otherwise you may direct your opponent's, or expose your hand. 5. If your partner does not follow suit, ask him the usual question. 6. Play your game on recognised principles. 7. Show as much care in playing low as in playing high cards. 8. Draw your inferences from the cards as they fall. If you are a beginner, do not attempt too much. Play for your partner's hand as well as for your own, and attentively observe the peculiarities of your partner and the systems of those with whom you play. 9. In scoring, when you mark honours claim them in an audible manner. Score to the right hand, and keep the counters not in use on your left hand. 10. Finally, although much may be learnt from those who are proficients, yet it is desirable to look over only one hand at a time; and bear in mind that no bystander ought to make any sign or remark which might declare the state of the game; that he ought not to go round the table to examine the various hands. In a word, whether you are a player or an onlooker, act in the manner most agreeable to the dictates of good breeding, good sense, and good taste.

The Game of Football.—This game, which affords much amusement and abundant exercise in cold weather, is sufficiently simple to be

easily described. An area of ground about 200 yards in length by about half that breadth, is marked off with flags, and posts called goals are set up eight yards apart. The players are divided into two opposite parties, and the game consists of the efforts made by the members of each party to impel, by kicking it, a ball suited to the purpose towards the goals appropriated to themselves. The ball is of india-rubber inflated with air, covered with leather, and about nine inches in diameter; and the goals have a tape reaching from one to the other at a height of eight feet from the ground. The party who wins a toss obtains the choice of goals. The game is commenced by a "place kick" of the ball from the centre of the ground by the side losing the toss; the other side not being allowed to come within ten yards of the ball till it is kicked off. A goal is said to be won when the ball is driven under the tape at that particular goal. When this occurs the goals are changed, and the losing side next kicks off the ball. No player is permitted to carry the ball or knock it on, or throw or pass it to another player, or lift it from the ground during the game. The opponents are not allowed to trip, push, or hold each other, or otherwise raise any obstacles to the fair progress of the contest. The game of football is highly popular at Eton, Harrow, Rugby, and other great public schools; and has become much more general since the formation of the Football Association in the metropolis.

Remarks on Gas and its Uses.—Under the term gas are comprehended various aëriform substances with which the investigations of chemistry have made us acquainted; but we usually understand by the word gas that species of it used for the purpose of producing artificial light for domestic and other purposes.

From a very early period mankind have observed that many of the vapours which issued from the earth in various parts of the world were of a highly inflammable nature. The Chinese, however, were the first who attempted to make any practical use of a vapour, supposed to be naphtha, which they conveyed into their houses in bamboo pipes, and burned by means of rude clay burners. The frequent explosions and ignition of the gas in the coal mines in Great Britain gave rise to the idea that it was possible to distil gas from coal which could be used for illuminating purposes. To a Mr. Murdock, of Redruth, in Cornwall, belongs the honour of the first practical application of this opinion. In 1790 he lighted his own house and offices by gas distilled from coal, and conveyed through pipes. In 1813 the manufacture of gas was begun in London, and soon extended to all parts of the kingdom.

All substances, whether animal, vegetable, or mineral, consisting of carbon, hydrogen, or oxygen, produce, when exposed to a red heat, various elastic inflammable fluids, capable of furnishing artificial light. The escape of the elastic fluid called gas may be frequently perceived during the burning of coal in a common fire, by the remarkably brilliant jets of flame which sometimes issue from the coal when heated to a certain point. These jets or streams of flame proceed from the production of carburetted hydrogen gas produced from the combustible body in an ignited condition. This gas, properly purified from the foreign substances mingled with it, forms, when propelled through minute apertures, the jets of flame called gas-lights. The purer the gas is, the higher is the degree of its illuminating power, and the less are its deleterious effects on all forms of life, both animal and vegetable. The heat emitted by gas during its combustion is very great. An invention has lately been patented for generating steam for manufacturing purposes by gas. The gas is mixed with air, and passes through a disc of wire gauze, where the mixture is ignited; the intensely hot air thus generated is made to pass through a multitude of tubes surrounded by water. In a 4-horse power boiler, occupying a diameter of 3 feet, a pressure of steam equal to 50 pounds per square inch can

be generated from cold water in less than half an hour after the gas jets have been ignited. Until the engine is started, one or two of the gas jets is sufficient to keep up the pressure; after that, the whole of the jets are called into play, and the pressure is maintained by simply regulating the supply of air and gas by means of an ordinary stop-cock—a wonderful reduction of labour compared with stocking with coal as fuel.

Gas has also been very successfully used for cooking purposes. Gas stoves have been so constructed that by the arrangement of gratings above rows of small gas jets, meat can be roasted as effectually as by the aid of coal, and without the meat imbibing the slightest taste of gas; baking, boiling, stewing, and frying can also be performed on these stoves; and for keeping meat, plates, &c., hot, in hotels and public dining-rooms, where a large number dine at various hours, they are invaluable.

Gas Burners. — Carburetted hydrogen gas requires two volumes of pure oxygen for its complete combustion, and atmospheric air contains about 20 per cent. of oxygen. One cubic foot of gas requires ten cubic feet of atmospheric air; if less than this proportion be admitted to the flame its brilliancy will be diminished, and a quantity of free carbon will escape, and be deposited in the form of dense black smoke. The best burners, therefore, are those which present the flame to the action of the atmosphere in such a manner as that the carbon contained in the gas shall be completely consumed. One of the best forms of the single burner is that which produces a thin and flat jet of gas to every part of which the oxygen has ready access, thus securing the greatest brilliancy, and allowing the least deposit of smoke. The Argand burner will afford an illustration of the principle now referred to. This form of burner consists of a number of minute orifices placed in a ring, so that a current of atmospheric air ascends both on the outer and inner circumference of the ring, and comes in contact with the flames issuing from the orifices already referred to. If, however, the flame be turned on too high, the air coming up through the inner ring becomes decomposed before it reaches the top of the flame, which consequently burns in one undivided mass; part of the gas is unconsumed, its products are not converted, carbon is abundantly precipitated, and the amount of light greatly reduced. The best burners, therefore, whether single or compound, are, for the reasons stated, those which admit of the gas being most completely consumed, and which consequently produce the least smoke and the greatest amount of light.

There are several forms of single burners. The cockspur, with three jets from separate holes in it; the fish-tail, with a narrow slit through which the gas escapes, and the union burner, with two or more small holes; some of these are lined with a new invention called "patent adamas," a siliceous substance, which is not liable to corrosion or oxidation; and the result of this quality is that the flame is always steady, and the gas thoroughly consumed. The adamas is unaffected by any degree of heat to which it may be subjected, and is so durable that burners tipped with it will last for years.

Another new invention that appears to be a success is Da Costa's patent burner, which has a small brass chamber containing a wire-gauze grating underneath the burner. The gas, in passing through the chamber, deposits the impurities on the wire gauze, and thus produces a much clearer and purer light, with a less amount of gas consumed.

New Patent Funnel. — This is a novel, ingenious, and useful invention, and is a combination of funnel and graduated measure. There are few housekeepers who do not from time to time experience some difficulty in estimating the quantity by measure of the liquids they have under treatment. Made wines, vinegar for pickling, and fluids not only require to be correctly estimated as to quantity, but when measured to be safely, and with-

out waste, poured into the vessel in which they are to be placed. The new funnel has a set of lines which indicate by figures pints, quarts, gallons, or their divisional parts. If a quart of water has to be put into a jar or bottle, the funnel is introduced in the usual way and the water poured in. Instead of its running through it is stopped by a valve until the "quart mark" is reached, when the pressure of the thumb on a lever fixed on the side causes a cord fixed to the valve to be drawn up. This allows the measured liquid to run through. This very clever contrivance is known as Smithurst's Patent Funnel.

How to manage Wines and Beer.—All wines, particularly the light-bodied and sparkling, require to be kept on their side, and at a uniform temperature of about 55 deg.

Claret, Burgundies, and also white wines, sparkling excepted, should be decanted very carefully in removing them from the bin when about to be used, otherwise the deposit is liable to become mixed with the liquid, and the flavour destroyed. Old bottled wines will lose many of their properties unless carefully decanted.

Wines old in bottle should be drunk immediately on being decanted. If allowed to remain open for any length of time, the delicate aroma, so much esteemed, will be lost, and the wine becomes vapid.

All aërated waters should have their corks kept damp, and be placed cork downwards.

Bottled stout and ale should be placed cork upwards; when required for use they should be moved carefully, and the whole poured out without putting down the bottle, otherwise the sediment will be shaken into the liquor.

Draught stout or beer, when tapped, if wanted for quick use, should have a porous vent peg put in the bung and left a short time to clear; if the draught is slow, give it time to fine without venting.

The beer cellar should be lofty, dry, and well ventilated; the temperature not too high, and equable. A heated atmosphere is to be avoided, or sudden draughts of air through the cellar. Pale ale may be completely spoiled by standing in a draught. The best temperature for a beer cellar is about 55 to 60 degrees, and the nearer it can be kept to this the better for its contents. Keep a thermometer in the cellar, so that you may always know the temperature.

Iron Wine Bins.—The cellular iron bins now manufactured will be found most useful and economical, particularly where the wine cellar is small. Each bottle having a separate place, there is less breakage, and ventilation—which is believed to be essential to the ripening of wines—is improved. The price is from three shillings per dozen, but with lattice down and locks the cost will be more.

Wine, Beer, and Spirit Taps.—One of the leading difficulties in the way of the attempt to tap a cask is the proper folding of the slip of paper usually made use of in adapting the tapered and perforated metal point of the tap to the orifice in the wood into which it has to be driven. With a view to facilitate the operation of barrel broaching, an india-rubber cap, which fits over the point or tail of the tap, has lately been invented. This cap entirely supersedes the necessity for papering, and helps to protect the end of the tube from injury. A supply of these caps should be kept in the cellar.

Excelsior Tap.—This lately invented contrivance is used for procuring the contents of champagne, lemonade, and other effervescent liquids, without drawing the cork. It is particularly useful in the sick chamber.

The Best Vent Peg.—Cockles's self-boring vent peg may be confidently recommended. Bore a hole in the bung of the cask with the instrument, pull it out to remove the borings, then screw the vent peg tightly in; a half-turn backwards will admit the air required. When sufficient ale is drawn, screw in again and tighten the peg, when the cask will be perfectly air-tight. The vent peg will effectually

prevent the liquor from becoming flat or sour.

Charcoal as an Antiseptic.—It is well known that charcoal possesses extraordinary powers in checking decomposition, as well as in rendering perfectly sweet animal substances which have already begun to undergo the chemical change so called. Meat, either before or after it is cooked, may be preserved for a considerable time even in warm weather by being placed in the centre of a clean earthenware vessel, and closely surrounded with pieces of common charcoal. To prevent the flies from "blowing" the meat, the vessel ought to be covered with wire-gauze. Our fair readers looking after this important part of their housewifery, may say with the humorous poet,—

> "My sweetbreads thus I guard full well,
> And keep them from the blue '*bottell.*'"

Thermo-plastic Putty.—The glazing putty known by the above name, and manufactured by Sir William Rose & Co., is peculiarly adapted for fixing the glass in roofs of greenhouses, and other buildings where glass and iron sash bars are used. This putty hardens in a few hours, but when exposed to heat sufficient to cause expansion of the glass and metal it becomes plastic. On cooling again it returns to its original firmness, thus preventing the loss by fractures and leakage which occurs where ordinary putty is used.

Condy's Patent Fluid.—Every family possessing dogs, singing birds, and other domestic favourites, should keep a supply of this valuable substance. For distempers in dogs, mix a tablespoonful of the fluid in a pint of water, and apply by means of a syringe to the animal's nose, also administer in small doses in its drink, and sprinkle about its haunches. A few drops of the fluid in water, to the extent of communicating a slight tinge of pink, will aid in preserving the health of cage birds, which are apt to suffer from impure drink. Condy's fluid is generally valuable for the treatment of animals suffering from disease, for counteracting the unwholesomeness of places in which they are kept, and for overcoming blight in vegetation, and foulness or mustiness in food and provender.

Ground Rice Milk.—Rub a spoonful of ground rice very smooth in a little cold milk; add to it three half-pints of milk, some nutmeg, cinnamon, and lemon peel; boil all together for a quarter of an hour, and sweeten to taste.

Chicken Panada.—Boil the fowl in a quart of water till about three parts done; take off the skin, cut the white meat off when cold; pound it in a mortar to a paste with a little of the water it was boiled in, season with a little salt, a little nutmeg, and a very small bit of lemon peel. Boil for a few minutes to such a consistency as you approve. This contains much nourishment in small bulk.

Liebig's Extract of Meat affords great facility and indeed great economy in making beef tea. The extract is sold in small jars in a highly concentrated state. A small half-teaspoonful dissolved in half a pint of boiling hot water, flavoured with a little salt, will produce excellent beef tea at about one quarter of the expense and a tenth of the trouble attendant on preparing the beef tea with beef bought at the butcher's; but many invalids dislike the peculiar burnt taste of the extract. To obviate this, mix the extract with weak beef tea made in the ordinary manner, and put into it a small quantity of essence of celery, or tie up in a small bit of muslin some celery seed, and boil it with the beef tea. This will give the mixture a most agreeable flavour.

To Remove Grease from Stone Steps or Passages.—Pour strong soda and water boiling hot over the spot, lay on it a little fuller's-earth made into a thin paste with boiling water, let it remain all night, and if the grease be not removed, repeat the process. Grease is sometimes taken out by rubbing the spot with a hard stone (not hearthstone), using sand and very hot water with soap and soda.

May-day.

No more on English village green,
The gaudy, flower-decked May-pole stands;
No more, to greet the May-day dawn,
Troop lads and maidens in merry bands.
There were fairy charms in the meshes of dew
That lay on the heath like a silver net,
And if fair was the maiden's blush, the bath
Of that magic dew made it fairer yet.

The lover gave, of the hawthorn blooms,
To his sweetheart, a spray—and she saw with a start,
That his faith was the white of the fragrant flower,
And his warm, true love was the red of its heart.
But "the world is old and is ever new"—
And what to me are those fancies of yore?
This May sun shines brighter than e'er sun shone,
And *I* love as lover ne'er loved before!

When last I came by Harrowbie Hill
The woods were black, the hedges were bare,
And only the pale anemone gleamed
Above the red leaves that fell last year.
Loud sang the lark o'er the fallow field,
The herald of sunnier days to be,
And the love in my heart was but trembling hope
For the fuller joy that might come to me.

But green are the Harrowbie glades to-day,
And the star of the woodruff scents the air,
And the love that timidly lurked in my heart
Now reigns in happiest empire there!
Then hushed be thy song of Hope, O lark!
For sunset's broad banner is wide unfurled,
And the nightingale sings with his breast on the thorn
The sad-sweet Love-Music of all the world!

D. Murray Smith.

The Month of May.

"Then came fair May, the fayrest mayde on ground,
Deckt all with dainties of her season's pryde,
And throwing flowers out of her lap around."
Spenser.

The Romans initiated the opening of the month of May with their floral games, which began in the end of April and continued until after May-day; it is probable that our English custom of celebrating the first of May dates back to the time when the Romans held the sway in this island. The raising of the May-pole is still observed in many of our villages, and has been a fertile theme both for pen and pencil. Who can forget the thrilling poem in which our Poet Laureate has immortalized the "Queen of the May"? Tennyson, however, has but followed in the steps of his elder brethren, from Chaucer, the father of English poetry, down to the present time, as almost every poet who has written on pastoral subjects mentions the May-day customs and revels, in which formerly it was considered proper for the king and queen, as well as the corporation of London, to join, and go "a-Maying."

The hawthorn, the "May" of poetry, is now in full beauty, and with its white and pink blossoms perfumes the hedgerows. The early wild flowers are in great profusion; the buttercup and daisy, with their white and golden flowers, relieve the deep green of the meadows. The woods are full of various kinds of wild geraniums, wood-sorrel, wood-anemones, red and white campions, and in marshy spots may be found those most curious-looking plants, the bee and butterfly orchis. The nightingale begins his song in May, and the other song-birds are busy in hatching and feeding their young ones, who begin to peep out of their nests about this time. On sunny days brilliant butterflies dart about in all directions, dazzling the eye with their gorgeous colours; the red admiral, peacock, tortoiseshell, and others equally beautiful, seek their food, perched like gems on the opening blossoms.

The Saxons called May Tri-milchi, or the month when cows are milked thrice a day. The weather during this month is usually variable, and east winds prevail, particularly in the early part of it. The superstition common all over Europe that May is an unlucky month to be married in dates back to the time of the Romans.

Cook's Calendar for May.

Fish in Season.—Turbot, halibut, brill, salmon, trout, sturgeon, haddock, herring, plaice, soles, whiting, carp, eels, perch, mullet, flounders, mackerel, gurnards, skate, smelts, tench, dabs, dory, crabs, lobsters, prawns, crayfish, shrimps.

Meat in Season.—Beef, veal, mutton, grass lamb, house lamb, pork.

Poultry and Game in Season.—Chickens, ducklings, fowls, green geese, pigeons, wild ducks, leverets, rabbits.

Vegetables in Season.—Asparagus, rhubarb, kidney beans, peas, radishes, artichokes, cabbage, cauliflowers, cucumbers, salads of various sorts, new potatoes, seakale, spinach, onions, turnips, parsley, and herbs of all kinds. Strawberries, early apricots, early peaches, can be had forced in hothouses.

Gardener's Calendar for May.

"Be it weal or be it woe,
Beans blow before May doth go."

The weeds nourished by the genial April weather will now almost rival the vegetables in the rapidity of their growth; they must be carefully pulled up, and the beds kept clear for the young crops. Keep asparagus beds well open. Hoe up beans, peas, endive, lettuces, and cabbages. Thin leeks, onions, carrots, parsnips, turnips, and beet. Plant out celery, brocoli, cabbages, cauliflowers, cucumbers, capsicums, vegetable marrows, and all plants of the gourd kind. Sow peas, beans, salad, red and white radishes, spinach, &c., for a succession of crops. Sow herbs for winter use. Attend to the removal of superfluous buds, and insects from fruit-trees. Remove useless branches and shoots. Water strawberries. In the flower-garden the bedding out of plants should be proceeded with as quickly as may be. All bulbs that have done flowering should be taken up, dried, and laid by. Fuchsias, calceolarias, and hard geraniums may be planted out along with verbenas of various colours to form pretty contrasts in the beds. Stir the earth about pinks and carnations, and tie up the stems to sticks to support the blossoms. Plant out dahlias, pansies, and chrysanthemums. Sow sweet-peas and other annuals for a succession; sow mignonette in every spare corner; nothing yields such a delightful perfume, or for so long a time. Sow biennials and perennials generally during this month. Watch the rose trees carefully, they are sure to be attacked by *aphides*, and must be smoked with tobacco to destroy them. The grass must be mown weekly and rolled; gravel walks should be kept neatly swept and rolled, and the flower-beds raked frequently.

To Prevent the Ravages of Insects upon Trees and Flowers.—The following plan has been recommended as most efficient for this purpose:—Mix nine parts of water with one part of French vinegar, and sprinkle the mixture over the flower-beds by means of a watering-pot or syringe with a fine rose.

Broiling.—General Remarks.—This is an excellent method of preparing animal food. It appears to be merely a variation of the process of roasting, and yet the effect is by no means exactly similar. In roasting and baking some considerable time is required to form an incrustation on the surface of the meat; but in broiling a brisk heat applied to it quickly frees the external fibres from their juices, and a crisp coating of fibre and fat is soon produced. This coating or crust prevents the escape of the juices from the interior of the meat, and as they are more rapidly expanded than in the slower process of roasting, they necessarily produce a much more rapid separation of the fibres from the bundles of which they are composed. The

effect thus produced is, strictly speaking, mechanical; and it would appear that the chemical combination which occurs in roasting does not take place, at least to the same extent; for broiled meat is found to contain more uncoagulated albumen, gelatine, and other chemical substances than if it had been either roasted or boiled. For this reason broiled meat is more juicy and palatable than when roasted. It ought, therefore, to be more wholesome and nutritious. For restoring the strength of invalids it is the best mode in which animal food can be dressed, not only because it is thereby rendered easy of digestion, but because the juices of the meat undergo so slight an alteration that comparatively little effort remains to be made in the laboratory of nature to convert them into chyle.

Broiled Rump Steaks. — These steaks ought always to be taken from the best part of the rump of beef, which should be kept long enough to be perfectly tender. As the meat may not yield sufficient gravy, this can be supplied by broiling a thick piece of gravy beef, which, sprinkled with salt and scored with a knife, will produce a sufficient quantity of gravy. Add to this gravy two tablespoonfuls of mushroom catsup made warm in it, small bits of butter laid over the steak, and if liked a finely minced shalot.

Broiled Veal Cutlets.—Cut the pieces of veal of an equal thickness; dip them into beaten egg, and sprinkle them with chopped herbs, parsley, mushrooms, grated lemon peel, and crumbs of bread; broil them to a fine brown colour. Make a sauce of butter and flour melted brown, moistened with veal gravy; put into it some button mushrooms, and pour the sauce hot over the cutlets. Slices of bacon should be placed round the dish, and lemon juice can be added if required at table.

Broiled Mutton Chops. — The chops should be cut from the loin. Pepper slightly, and put them on the gridiron over a clear fire. Use a pair of tongs in turning over, and when sufficiently done put them in a hot water dish, sprinkle with salt, and lay on them small bits of butter. Care should be taken to serve hot. Avoid sticking a fork into them, or the gravy will escape.

Broiled Fowl.—Slit the fowl down the back, and score to the bone all the thicker parts, as the thighs and breast, in order to its being all equally done. Brush over the inside and the places scored with catsup and pepper, and broil over a clear fire. A sauce should be made of butter and flour melted brown, into which, when taken from the fire, should be put capers or button mushrooms. This is usually called a "spatch-cock," or "despatch cock," from the short time it takes to cook.

Broiled Partridges.—Cut them in half, dip them in butter previously melted, and cover them thickly with crumbs of bread. A quarter of an hour ought to be sufficient to cook them over a clear fire.

Broiled Rabbits.—They must be split down the middle and laid flat on the gridiron. The inside ought to be previously seasoned with pepper and salt. The sauce served with them may be made with the liver chopped fine with parsley and melted butter.

Broiled Salmon. — The slices of salmon to be broiled ought to be half an inch in thickness. Rub the gridiron with lard, and let the fire be clear. To make the salmon steaks very savoury and nice, lay the slices the day before using in a deep dish, and put over them the following composition:— Mix in a cup two tablespoonfuls of good vinegar, one of Worcester sauce, two of mushroom catsup, one of moist sugar, one small teaspoonful of salt, and half a teaspoonful of ground pepper. When about to cook, wrap each slice in well oiled or buttered paper, and broil.

Baking Meat.—General Remarks.—This method of cooking, although inferior to broiling or roasting, is nevertheless superior to the process of frying. Baked meat, when carefully done, is sufficiently wholesome for occasional use. It must be kept in view, however, that in the process of baking

the vapour exhaled from the meat does not escape as in roasting; there is likewise a much greater retention of the oleaginous juices of the meat in a state which renders the food less nutritious, as well as less digestible.

Baked Rump of Beef.—Cut out the bone and break it, beat the flesh with a rolling pin; season with pepper, salt, and cloves, and lard the meat across. Put the meat into an earthen pan, with the broken bones, some butter, bay leaves, whole pepper, one or two shalots, and sweet herbs; cover it close, and place it in the oven; it will require six hours to bake. Skim off the fat, dish the meat, and serve with dried sippets and its own liquor.

Baked Leg of Beef.—Cut the meat off and break the bones. Put them all into an earthen pan with two onions, and a bundle of sweet herbs, and season with whole pepper, cloves, and blades of mace. Cover it with water, tie the top close with brown paper, and put it in the oven. When done, take out the pieces of meat, lay them in a dish, and return them to the oven to keep hot. Skim off the fat, and strain the liquor, pick out the bones and sinews, and put them in a saucepan with a little of the gravy, and butter rolled in flour. When hot pour it into the dish with the meat.

To Bake Ox Cheek.—This is to be done in the same way as recommended for leg of beef; and if the liquor be too rich it may be reduced with boiling water.

To Bake Calf's Head.—Clean it carefully, and put it into a large earthen dish, laying it on iron skewers placed across the top of the dish. Grate some nutmeg over the head, with sweet herbs chopped small, pepper and salt, crumbs of bread, and a little lemon peel. Flour it, placing some pieces of butter over it, and put it into the oven. Put into the dish a bunch of sweet herbs, an onion, a blade of mace, some whole pepper, two cloves, and a pint of water. Boil the brains with sage. When done, lay the head on a dish before the fire; then put into a saucepan the gravy which has drained into the dish. When boiled, strain it, and put it again into the saucepan. Add butter rolled in flour, the brains and sage chopped fine, a spoonful of catsup, and two spoonfuls of red wine. Boil the whole for a minute, and pour it over the head in the dish.

Calf's Heart Baked. — A calf's heart, cleaned and stuffed like a bullock's heart, is extremely good baked in a good gravy. Sheep's hearts may also be cooked in the same way.

Frying.—General Remarks.—This is one of the worst methods of cookery that can be adopted. It cannot be accomplished without the aid of oil or fat, which beyond question tends to render the meat very indigestible. It is no less injurious to vegetables. As an example of this it may be stated that the potato when fried becomes waxy in its texture, and often produces derangement of the stomach in healthy and vigorous persons. As it is requisite, however, to give instructions for this mode of cooking, we submit the following as most suitable:—

To Fry Beefsteaks. — Fry them over a brisk fire in butter, and when done and of a good light brown, put them in a dish before the fire. Then take half a pint of hot gravy, and put it into the pan with pepper and salt, and two or three shalots chopped fine. Boil it for two or three minutes, and pour it over the steaks. Garnish with horseradish.

To Fry Veal Cutlets.—Cut them from the fillet in neat small pieces about half an inch in thickness. Dip them into the well-beaten yolk of an egg; sprinkle them over with bread crumbs, sweet herbs chopped small, and grated lemon peel, and fry them in butter to a light brown. When done, pour out the butter, and make gravy in the pan with warm water or broth, adding a little lemon juice and mushroom catsup, and thicken with flour and butter; lay mashed potatoes in the centre of the dish, and the cutlets round it.

To Fry Mutton Chops.—Turn the chops in the pan frequently, and when done remove them to a hot dish, and pour away the fat in the pan. Boil

up in it a few tablespoonfuls of broth or warm water, with a tablespoonful of mushroom catsup, or any other sauce with a good flavour, and when hot pour it into the dish with the chops.

Mutton cutlets may be dressed in the same way as veal cutlets, and served with tomato sauce.

To Fry Lamb Chops.—Trim neatly some chops from the loin, and season them with a little pepper; wet them with yolk of egg, and cover them with grated bread, marjoram, thyme, parsley, and lemon peel finely chopped and mixed together. Fry the chops of a light brown. Garnish with crisp parsley.

To Fry Sausages.—In addition to the usual method of frying sausages, take six apples, and slice four of them; cut the remaining two into quarters, taking out the cores. Fry the slices with the sausages till of a nice light brown. When done, put the sausages in the middle of the dish and the sliced apples round them. Garnish with the quartered apples.

To Fry Chickens.—Cut them into quarters, rub them with yolk of egg, and cover them with crumbs of bread, pepper, salt, grated nutmeg, lemon peel, and chopped parsley. Fry them in butter, and when done put them on a dish before the fire. Thicken some gravy with flour, adding a little cayenne pepper, some mushroom catsup, and lemon juice, and pour it over the chickens.

To Fry Haddock.—Skin the fish, cover it with bread crumb and egg, seasoned with salt and pepper, and fry with boiling lard or butter.

To Fry Soles.—Beat up two eggs and a little salt, rub it over the fish, and sift on it some bread crumbs. Fry to a light brown. If the soles are large and thick, divide them into two or three pieces, or score them to the bone.

To Fry Skate.—Divide the pieces of skate, and dry them on a cloth; beat the white and yolk of an egg thoroughly, and dip the pieces of fish into it, and then into bread crumbs. Fry in hot lard or oil till of a fine brown; garnish with crisp parsley, and serve with caper sauce with an anchovy in it.

To Fry Mackerel. — Divide the fish into pieces; remove the skin; dip them in beaten egg; strew on them chopped parsley and bread crumbs, and fry them. For sauce melt some butter with a little flour, put into it the roes of the fish, pounded; season with salt and cayenne, and a little catsup, and pour it hot over the fish.

If mackerel are quite fresh when bought, they are very delicious cooked in the following manner:—Split the fish down the back, clean it, and wash in salt and water; lay it in a dish with the skin downwards, sprinkle it thickly over with pepper and salt, and lay in a cool place. Fry with a quantity of butter or oil, and serve with fried parsley.

Vegetable Food.—General Remarks.—This subject is intimately associated with that of cookery, and merits the attention not only of those immediately interested in culinary operations, but of all intelligent persons. Without referring to any particular modes of cooking vegetables, it is very desirable to be able to form some ideas as to the qualities of such substances, and their value, when compared with each other, as regards their powers of nutrition, their wholesomeness, and, in general, their relative suitableness as articles of food. All the articles of food yielded by the vegetable kingdom may be comprehended under the following classes:—The various kinds of grain, such as wheat and barley; the different sorts of leguminous seeds, such as peas and beans; the various herbs, such as salad; the roots, such as the potato, carrot, and turnip; and the various fruits, such as apples and pears. Under each of these subdivisions a few general observations will not be out of place.

Roots of Vegetables as Food.—Nature is for the most part accurate in her instincts, and it may be safely affirmed that any species of aliment for which we have a permanent and therefore a natural appetite is on that account salutary, and adapted to our wants. This is pre-eminently the case as to the potato. Even with the simplest preparation,

and the addition of a little salt, it affords a wholesome and agreeable food. It sometimes constitutes for months together, either with or without milk, the staple, and almost the sole food of thousands of the most industrious people in Ireland, an evidence not to be doubted of its highly nutritive and salutary qualities. The mealy sort of potato is, in all respects, the best, and the simplest method of preparing this valuable esculent for the table is also the best. The potato yields a large quantity of arrowroot, or starch, of excellent quality. Turnips, parsnips, celery, are all wholesome roots. The onion is said to assist digestion; but carrots and radishes are less digestible than several others.

Leguminous Vegetables.—In this class are included peas, beans, and all the variety of plants which produce their seeds in pods. All these are more or less liable to objection as articles of diet. They are all indigestible, heating, productive of flatulency, and afford comparatively little nourishment. Peas and beans, especially the latter, are oppressive to the stomach, and are best adapted to the strong and vigorous. It is proper to observe, however, that French beans are among the best vegetables our gardens produce when eaten in the usual way, that is, while the pod is young and tender.

Raw vegetables, as articles of food, are not much to be recommended, even to those who are happy enough to be free from the evils of indigestion. Lettuce, however, contains a juice which is narcotic and soporific in its effects; this was well known in the earliest ages. It is said that the celebrated Galen used to eat the lettuce in the evening as a remedy for wakefulness, and those troubled by restless nights frequently use it with advantage at supper.

The effect of boiling on vegetables is very remarkable. It deprives them of a large quantity of the air they contain, and renders them altogether more soluble. The process of boiling is known to produce on vegetables the most unexpected results, converting some plants which, in a raw state, are extremely acrid and even poisonous, into bland, agreeable, and nutritious substances. A familiar instance of this is the potato; in its raw state it is nauseous and unpalatable, and as it is one of the nightshades, it may be even slightly poisonous; but when it is boiled it becomes farinaceous, digestible, and nutritious. The cassava of America affords a still more striking instance of the beneficial effects of boiling. The plant is poisonous before being boiled, but afterwards becomes wholesome and excellent. The prepared cassava is well known to us under the name of tapioca, which, as our fair readers well know, forms the basis of an excellent and wholesome pudding.

On Cooking Vegetables.

—General Remarks.—All vegetables ought to be carefully washed and picked, and laid in cold water before being cooked. When boiled they should have plenty of water. Care should be taken not to overdo them, as it spoils their colour, and deprives them of their crispness. They ought to be put into boiling water with a handful of salt in it, and when they begin to sink it is a sign that they are sufficiently done; if the water has not been allowed to slacken in the boiling, they should, when taken up, be drained immediately, or they will lose their colour. Hard water destroys the colour of those vegetables that should look green. A piece of soda, about the size of a bean, put into a pot holding two gallons of water, in which the vegetables are to be boiled, will keep them of a beautiful green colour. The lid of the pot should be left off while boiling.

Spinach, to Boil.—Pick and wash it with great care. Put it into a saucepan that will just hold it, sprinkle it with salt, and cover close. The saucepan must be set on the fire and well shaken. When done, beat the spinach up with a little butter; it must come to table pretty dry, and it looks well if pressed into a tin mould in the form of a leaf; serve with poached eggs.

To make a Neat Dish of Vegetables.—Wash a dish with white of

egg, and make four divisions in it with fried bread. Put in each division the following vegetables. Stewed spinach in one; in the next mashed turnips; in the third mashed potatoes, and in the fourth blanched onions and sliced carrots, or pieces of cauliflower, or heads of brocoli.

Artichoke Bottoms, to Fry.—Blanch, flour, and fry them in fresh butter. Dish and pour melted butter on them, or put a little red wine into the butter, and season with nutmeg, pepper, and salt.

Artichoke Bottoms, to Ragout.—Soak them in warm water for two or three hours, changing the water; then put them in the stew-pan with some gravy, mushroom catsup, cayenne pepper, and salt. When boiling thicken them with flour, put them in a dish, pour the sauce over them, and serve them hot.

Beetroot, to Cook.—If the beetroot is broken before it is dressed it bleeds, loses its fine colour, and looks ill. Boil the root tender with the skin on, slice it into the stew-pan with a little stock and a spoonful of vinegar; simmer till the gravy is tinged with the colour; then put it into a small dish, and make a round of the button onions, first boiled tender; take off the skin before serving, and serve hot. Or roast three large onions, peel off the outer skins till they look clear, and serve the beetroot stewed round them.

Boiled Artichokes.—Twist off the stalks and wash them in cold water. When the water boils put them in with the tops downwards. They will be done in an hour and a half. Serve with melted butter.

Boiled Asparagus. — Carefully scrape the stalks till white; cut them even; throw them into a stew-pan of clean water, and have ready a stew-pan with boiling water, and a little salt in it. Tie the asparagus in small bunches, put them in, and when they begin to be tender take them up. If too much boiled they lose both colour and taste. Toast a round of bread about half an inch thick; dip it into the liquor the asparagus was boiled in, and lay it in the dish. Pour melted butter on the toast, lay the asparagus round the dish, the tops inwards, and serve with melted butter.

Brocoli, to Boil.—Strip off the leaves till you come to the top ones; peel off all the outside skin from the stalks and small branches, and throw them into water. Boil in accordance with the general directions. When the stalks are tender it is done. Serve in the same manner as asparagus.

Kidney Beans boiled. — String them; slit them down the middle and cut them across; let them stand some time in salt and water; boil them, and when tender they are done. Serve with melted butter.

Cauliflower, to Boil. — Having cut off the green part, divide it into four; put it into boiling milk and water, and skim the saucepan well. When the stalks are tender take them up carefully, and put them to drain. Then put a spoonful of water into a stewpan, with a little flour, a quarter of a pound of butter, and pepper and salt mixed well together. Take half the cauliflower and cut it as for pickling, put it into the stew-pan for ten minutes. Place the stewed cauliflower in the middle, and the boiled round it, and pour over it the butter in which the one half was stewed.

To Boil Cabbage, Savoys, &c.—Follow the general directions. When the vegetables are tender, drain them with a sieve, but do not press them.

To Boil Parsnips and Carrots.—Boil them with plenty of water, and when soft, which may be known by running a fork into them, take them up. Scrape them well. Serve them with melted butter in a sauce tureen. If they are old, peel before boiling.

To Boil Peas.—Peas must not be done in much water. Chop scalded mint, and stir in cold butter, pepper, and salt.

To Boil New Potatoes.—Potatoes ought to have only sufficient water to keep the saucepan from burning. Put them in cold water, with salt. Keep

them close covered, boil slowly, and when the skins crack they are done. Drain out all the water, and place them again on the fire to throw off the steam and moisture, then peal them, lay them in a dish, and pour melted butter over them. Or when peeled, lay them on a gridiron till of a fine brown, and send them to table. When the potatoes are fully ripe, and taken up for winter, they are best steamed; peel and wash them carefully first; when done take the steamer off, and lay it before the fire to dry the potatoes. Shake them once or twice, and do not leave them at the fire for more than five minutes before serving.

Law of Master and Servant.—When no time is limited, either expressly or by implication, the hiring is considered a hiring for a year. By the death of a master a servant is discharged. The contract of domestic servants is determined by giving a month's notice, or paying a month's wages. The discharge of a servant may be justified for incompetence, negligence, disobedience, dishonesty, drunkenness, or permanent disability. Should a master wrongfully dismiss his servant, the latter is entitled to bring an action concluding for wages during the whole period of the engagement. A master may bring an action for the seduction of his female servant in respect of the loss of her services. A master is bound to indemnify his servant from the consequences of doing anything in obedience to his orders; but he is not bound to indemnify a servant against the consequences of injuries sustained in the ordinary discharge of the duties for which he was hired. A master is not obliged to give a servant a character on dismissal. No action can be maintained against a master for giving an unfavourable character to a servant in answer to inquiries. If a master knowingly gives a false character of a servant to a person about to hire such servant, and the servant afterwards robs or injures his new master, the latter may institute an action for damage. Payment in goods to any person engaged as an artificer is illegal. When an employer or employed shall neglect or refuse to fulfil any contract of service, the party aggrieved may lay an information before a justice or sheriff, upon which a summons will be issued against the party complained against, and if he fail to appear, a warrant will be issued.

The Law of Libel.—In the eye of the law, written libel is a greater injury than slander or oral defamation. General terms of abuse are not actionable unless they are committed to writing and circulated with the intent of injuring an individual in his profession or trade, or in his holding any office, whether honorary or productive of emolument. The humility of the occupation is no objection to the action. Words imputing drunkenness to a master mariner, or insolvency or fraud to a tradesman, or incapacity to a professional man, are actionable, without proof of special damage. A publication calculated to injure the reputation of another by exposing him to contempt or ridicule is a libel. The reviewer of a book, if he follow the author into domestic life for the purpose of slander, is amenable for libel. The imputation of wicked or corrupt motives against a public man is libellous. The existence of a slanderous rumour does not justify the repetition of it; but a defendant is justified if he can substantiate that which he has published as true.

Statements made by members of Parliament in the course of their duty are privileged; also statements made by a judge, counsel, juror, witness, &c., in the course of a judicial proceeding. A master or mistress is privileged in making a defamatory communication to an inquiry respecting the character of a servant. A person who falsely publishes a defamatory libel of another may be apprehended by warrant and committed for trial. When a libel tends to produce great public mischief, a criminal information may be instituted by the Attorney-General.

In case of any indictment for the publication of a libel, if judgment be

given for the defendant he is entitled to recover costs from the plaintiff; or if judgment is for the plaintiff, the defendant must pay the costs.

The Game of Bezique.—The following account of this interesting and popular game is abridged from the treatise by "Cavendish," by special permission of Messrs. De la Rue. The game is usually played by two persons. The packs being shuffled, the players cut for deal. The dealer gives eight cards to each player. The seventeenth card is turned up for trumps.

Playing.—The non-dealer plays any card out of his hand, and the dealer plays a card to it. If he wins or trumps it he has to lead. Whoever wins the trick has the next lead; but before playing each player draws a card from the pack spread before them, the winner of the trick drawing the top card, and the other player taking the card next it; by this means the number of cards in each hand is restored to what it originally was, viz., eight. By this process of alternate playing and drawing a card the stock is at length exhausted. In playing, the highest card of the same suit wins the trick; the ace is highest. then the ten, the king, queen, knave, nine, eight, and seven. On the case of ties the leader wins. Trumps win other suits. The tricks are left face upward on the table till the end of the lead; they are of no value but for the aces and tens they contain. The objects of the play are to win aces and tens, and promote in the hand various combinations of cards which, when "declared," score a certain number of points.

Declaring.—A declaration can be made only immediately after winning a trick, and before drawing a card from the pack. It is done by placing the declared cards face upward on the table. Players are not bound to declare unless they like. A card cannot be played to a trick and declared at the same time. Only one combination can be declared to one trick. In declaring fresh combinations, one or more cards of the fresh combination must proceed from the part of the hand held up. The same card can be declared more than once, provided the combination in which it afterwards appears is of a different class. The player scoring the last trick can, at the same time, declare anything in his hand, after which all declarations cease.

Variations in the Game.—It may be played by three or by four persons. If by three they all play against each other, and three packs of cards are used.

Number of Packs.—If four play, four packs are used, shuffled together; but this is considered as being very complicated.

Diminished Scores.—Some players consider the double bezique and sequence scores as too high, and therefore make the score for the former 300, and for the latter 200.

The Last Trick.—This is sometimes understood to mean the thirty-second trick, or last of all. This, however, is supposed to be an error arising from incorrect nomenclature.

Aces and Tens.—These are sometimes not scored till the end of the hand.

Scoring.—The score may be kept with a bezique board and pegs, or by a numbered dial and hand, or by means of counters, which last method is the best.

Hints to Learners.—The following hints may be of use in solving one of the chief difficulties, that of deciding what cards to retain and what to throw away. (1) It is no advantage to get the lead unless you have something to declare. (2) The cards that can, without loss, be parted with, are sevens, eights, and nines. (3) After these the least injurious cards to part with are knaves. (4) In difficulties it is better to lead a ten or an ace as a rule, than a king or queen; but to the rule there are several exceptions. (5) It is seldom advisable to go for four aces unless you happen to hold three, and are in no difficulty. (6) If driven to lead an ace or a ten, and your adversary does not take the trick, it is often good play to lead another next time. (7) Do not part with small trumps if it can be helped. (8) Do not part with trump sequence cards. (9) Until near the end do not part with

bezique cards even after declaring bezique. (10) Having a choice between playing a possible scoring card or a small trump, or a card you have declared, play the declared card so as not to expose your hand. (11) Avoid showing your adversary by what you declare, so that he shall not be able to make the trump sequence or double bezique. (12) Whenever your adversary leads a card of a suit of which you hold the ten, take the trick with the ten. (13) Win the last trick if possible. (14) In playing the last eight tricks your object should be to save your aces or tens and win those of your adversary. Our readers will find the game of bezique minutely described in "The Pocket Guide to Bezique," and "The Game of Bezique," both by Cavendish.

The Game of Drole.—We shall endeavour to give an account of this new and interesting game, taken, by the kind permission of Messrs. De la Rue, from their work on Drole, by "Cavendish." To play a drole board one or two packs of cards are required, and two or more persons may engage in the game. The players having cut for deal, the dealer gives five cards to each player, and the remainder of the pack is put aside. The cards have a certain rank:—The king highest, then queen, knave, ace, ten, nine, eight, seven, and three are no trumps. If two play, all cards below a seven are thrown out. For every additional player four cards are added to the pack, then if three play the sixes are added; if four play the fives also are added, and so on till the pack is exhausted. The leader plays any card out of his hand he pleases, placing it on the board face upward, and in any division of the board. A card played in its own suit can be won only by a superior card of that suit; if played on a suit not its own it can be won by a superior card of either of these suits; but a card placed on the line dividing two suits, neither being its own, can be won by a superior card of its own suit, or of either of the two played on; and a card played over the place where four suits join, *i. e.*, on all the four suits, can be won by a superior card of any of them. The tricks count according to the number of suits played on. Each player plays to the card led. Each must follow suit to the card led, or win the trick. For example, a club is played on the diamond suit. If any player can win the trick with a diamond, he may do so, notwithstanding that he has a club in hand. Again, suppose a player has a club and a diamond, both higher than the club led, he may head the trick with either. If he has a higher and a lower club, he may head the trick or not, so long as he follows suit to the card led. The player need not follow suit to the suit played on, only to the card led. Whoever wins the trick leads to the next. All the five cards are thus played from each hand one by one, the players scoring after each trick. When two play, twenty-three is the game; and when more than two play, seventeen is the game.

Savage Drole.—There are only two deals in this game; but in all other respects it is similar to the ordinary game of drole. The player who is highest at the end of the second hand wins the game. In case of ties there is another deal, and the game continues until one player stands highest at the conclusion of a hand.

Privileged Cards.—These are the Emperor, the Empress, Beautiful Nell, Jack Drole, and the aces (the four beggars). These cards have the powers now to be described, viz.:—

The Emperor (King of Hearts), whether led or played, wins every other card in any suit, except the privileged carts, and counts double what the trick was played for.

The Empress (Queen of Hearts), whether led or played, wins the king if in the same trick with him, counting what the king would have scored had he won. If the King of Hearts is not in the trick the Queen ranks only as an ordinary card.

Beautiful Nell (Queen of Spades) has the power of interceding, *i. e.*, of preventing a trick from counting. Whenever the Queen is played to a

trick, the trick goes for nothing. The player of the Queen of Spades has the next lead.

Jack Drole (Knave of Diamonds) has the power of robbing in any suit, that is, sending back the player who wins the trick as many points as he would have scored. The player of drole cannot win the trick; he merely sends back the winner, but he takes the next lead. If Jack Drole is led to a trick he has only the same power as an ordinary knave, and may win or be won.

The Four Beggars (the aces).—When a trick containing an ace scores more than two, the player of the ace *begs*, namely, gets part of the score from the winner. In a trick scoring three or four, the ace gets one and the winner the remainder. In a six or eight trick the ace gets two, the winner the remainder. If a trick is robbed the ace goes back in the same proportion, and the winner goes back the remainder. When there are two aces in a trick the second ace gets nothing. There is no begging in a trick which is won by an ace, in a trick which wins the game, nor in a trick to which Nell is played. An ace may be played to any suit.

Laws of Drole.—(1) The lowest card deals. (2) The player to the dealer's right cuts. (3) If the dealer gives any player more or less than five cards, and the player declares it, there must be a fresh deal, and the dealer goes back four points. (4) If the dealer deals himself less than five cards, he may complete his hand from the stock before playing to the first trick, and is then not liable in any penalty. (5) If a player has more or less than five cards dealt him, and fails to declare it before the first trick, he goes back four points, and can score nothing that hand. (6) If a card is exposed in dealing there must be a fresh deal. (7) If there is a card faced in the pack, there must be a new deal. (8) If a player deals out of turn the error may be rectified before the deal is complete.

Playing.—If a player exposes a card after the deal is complete, he can score nothing that hand. If a player leads out of turn it is the same as though he had exposed a card. When more than two play, the player to the dealer's left has the first lead. A card once led in turn cannot be taken up again. If a player revokes to the card led, and does not head the trick, he must go back four. The cards must not be searched during the play of the hand. If a player who is robbed, or incurs a penalty, has not already scored as many as he has to go back, he owes the difference, and must pay it off before he begins to score.

Best Mode of Treating Bleeding from the Nose.—This may be caused by violence, or may arise from an impoverished state of the blood. When it occurs in persons of middle age it is more serious, as it is then often a symptom of some other disease.

The bleeding can generally be stopped by making the patient raise both his arms above his head, and hold them there for some time. Sponging with cold or iced water to the forehead and face, or applying a towel wet with cold water between the shoulders, will, in most cases, succeed. The application of a strong solution of alum or iron-alum to the inside of the nostrils, or plugging the nostrils with lint or cotton wool soaked in the solution, may be necessary if the bleeding is profuse.

The health of persons subject to these attacks should be improved by nutritious diet,—animal food, with potatoes, watercresses, and fruit. The following prescription may be relied on:—

Tincture of steel . .	2 drachms.
Dilute muriatic acid .	1 drachm.
Syrup of orange peel	1 ounce.
Infusion of calumba	7 ounces.

Mix. For a boy, one tablespoonful in a wineglass of water before meals; for an adult the dose may be increased.

Weak Eyes.—Bathe the eyes night and morning with tepid water, and then use the following lotion:—

Oxide of zinc	1 drachm.
Rose water .	8 ounces.

Mix. If the eyelids stick together in

the mornings a little weak citrine ointment (golden ointment) slightly warmed should be applied at bedtime to the edges of the lids with a feather or the tip of the finger.

Astringent Eye-water.--Ten drops of extract of lead, viz., the liquor plumbi acetatis of the druggist; distilled vinegar two drachms, distilled water four ounces. This is an excellent wash for inflamed eyes.

Anodyne Eye-water.—Solution of acetate of ammonia two ounces, distilled water, hot, six ounces, soft extract of opium ten grains. Dissolve the opium in the hot water, strain through fine muslin, and add the solution of the acetate of ammonia. This application frequently affords great relief from the pain and irritation accompanying inflammation.

Eye-water for Specks on the Eye.—Oxymuriate of mercury half a grain, best rose water four ounces. This solution is of much use in removing the indolent inflammation and the white specks which an acute inflammation of the eyes frequently leaves after it.

Embrocations and Liniments.—These preparations have the consistence of oils, so as to allow of their being easily rubbed on the skin. They act as local stimulants, relieving deep-seated pains and inflammations.

Liniment for Sprains and Bruises.—Compound liniment of camphor an ounce and a half, tincture of opium half an ounce. Mix. This is an admirable application for sprains and bruises after the inflammation has disappeared, and for rheumatism and colic when unattended by inflammation.

Liniment for Bruises and Sprains when Inflamed.—Acetate of ammonia and soap liniment of each an ounce, mixed together.

Liniment for Rheumatism.—Olive oil and oil of turpentine of each an ounce and a half, spirit of vitriol three drachms. Mix. This will be found excellent for rheumatism, sprains, chilblains, and other cases in which active application is needful.

Chilblain Liniment.—One ounce of camphorated spirit of wine, half an ounce of the liquor of subacetate of lead. Mix and apply three or four times a day. This is Sir Astley Cooper's prescription, and very efficacious.

Chlorodyne. — An excellent remedy for various internal pains. Its power of soothing the patient is very great, and it is not accompanied by the injurious effects consequent on the administration of laudanum, morphia, or opium. The bottles in which this patent medicine is sold are accompanied by directions for its proper use.

Food for Invalids.—Meat Panada. — Take the inside of a loin of mutton or of part of a sirloin of beef, pound it till it will pass through a sieve when mixed with hot water or with broth, as it is required to be more or less rich. The most proper seasoning is a little salt. It ought to be kept in an earthen vessel in a cool place. When a little of it is required it should be warmed up and served with thin slices of bread.

Bread Panada.—Grate a teacupful of bread, and mix well with it some beef or mutton gravy, boil till it thickens, stirring it when boiling.

Sago Milk.—Wash a tablespoonful of sago in cold milk, pour off the milk and add to the sago a quart of new milk. Boil both together down to one pint, add a little cinnamon if necessary.

Drinks for Invalids.—Milk Whey.—Place a small piece of rennet in a cup of hot water for four or five hours. Pour the water into two quarts of new milk, and when the curd appears, strain the whole through a hair sieve into a jug. The whey may be given to a patient either cool or lukewarm.

White Wine Whey.—Boil half a pint of new milk, and while boiling pour into the saucepan two glasses of white wine. The curd, which will soon form, will fall to the bottom of the saucepan, and the whey can be strained carefully off. This whey promotes perspiration; it is of much use, there-

fore, at the commencement of an illness. It forms also an excellent draught in the earlier stages of a patient's recovery.

Nitre Whey.—Pour a dessertspoonful of the sweet spirit of nitre into boiling milk. Sweeten it with a little white sugar. This preparation is an excellent sudorific. It ought to be taken as hot as possible.

Lemon or Vinegar Whey.—Pour a tablespoonful of lemon juice and vinegar into boiling milk. The whey thus produced is said to be less stimulating than that made from wine.

Lemon Water.—Put two or three slices of lemon with a lump of sugar and a spoonful of capillaire into a covered jug, and pour into it a pint of boiling water. Cover it closely for two or three hours. It will thus form a very agreeable drink for a feverish patient.

Raspberry Vinegar. — A dessertspoonful in a tumbler of cold water forms a very useful drink for some invalids.

Apple Water.—Slice some apples and cover them with boiling water, putting in a little sugar and lemon peel. This makes a very pleasant beverage for invalids.

Tamarind Water. — Hot water poured on tamarinds makes a very agreeable drink, but as the infusion is somewhat acid, the advice of the medical man should be had recourse to before using it.

Two-milk Whey.—One of the most agreeable as well as the most wholesome drinks a patient can take is two-milk whey, which may thus be easily prepared:—Boil a pint of new milk. When quite boiling add a small cupful of sour milk, and set it on the fire until it boils up briskly; take off the saucepan and stand it beside the fire for a few moments. The acid in the sour milk will convert the whole into curds and whey, when the whey should be poured off for use. If the milk is not all turned into curds and whey, add a little more sour or butter-milk until the whey looks clear, but it must not taste acid. This whey is an excellent diaphoretic and febrifuge, and in several respects superior to the whey made with wine or vinegar.

To Destroy Moths.—Moths are extremely destructive to books, clothes, and the leaves of plants; every moth should be killed when seen. The best prevention against these insects is to close the windows after nightfall. The odour of camphor and Russia leather is obnoxious to them. To protect furs and woollens from their ravages, the articles should be frequently brushed and exposed to the air. Furs seldom used ought to be carefully wrapped up in linen. Insect powder is useful in destroying moths, also the fibres of a plant called Vetivert, which is much used in France to destroy them.

How to Destroy Cockroaches.—The house-beetle and the black-beetle or cockroach leave their places of concealment at night; they frequent kitchens, bakehouses, and the cabins of ships. The cockroach devours animal and vegetable substances, and emits from its mouth a dark fluid imparting a fetid odour. The best method of destroying these household pests is to place on the floor a glazed washing basin with a little treacle at the bottom. Rest a slip of wood in a slanting direction between the edge of the basin and the floor. During the night the beetles, attracted by the treacle, will enter the basin to enjoy it. Having attained their object by mounting the wooden trap, they descend to their prey, but are unable, from the slippery nature of the sides of the basin, to retrace their steps, and perish in the scene of their festivities. A tame hedgehog in a kitchen is useful in catching and eating cockroaches. Phosphor paste answers the same purpose, particularly that form of it sold under the name of "Brown's Magic Paste," which we have found most effectual for destroying these insects, and which no cat or dog will touch.

Infectious Diseases. — It has been conjectured that typhus and other malignant diseases have their origin in a concurrence of causes rarely

taking place, but that afterwards they are propagated by a peculiar contagion. The combination of a very few circumstances is sufficient to generate typhus fever. The most powerful of these circumstances are confinement in crowded and ill-ventilated places; uncleanliness of all kinds; the putrid effluvia of animal and vegetable substances, and insufficient and unwholesome food. It is desirable to observe that the confinement of the malignant effluvium within the walls of a building is not always necessary for the production of typhus fever. It has been occasioned by the offal of a city accumulated without the walls, and in hot and foggy weather has been known to spread from the infected city over the country adjacent. It may be carried from place to place by the wind when the cause of infection is sufficiently abundant. A striking instance of this took place at the Old Bailey on the 12th May, 1750. Certain prisoners before their trial were detained for nearly a whole day in a small ill-ventilated and crowded apartment, some of them at the time labouring under jail fever. When the prisoners were brought into court the windows at the end of the hall opposite to the place occupied by the judges were thrown open. The people on the left side of the court, on whom the tainted atmosphere blew, were infected with the fever, while those on the opposite side escaped. The Lord Chief Justice and the Recorder, who sat on the Lord Mayor's right hand, escaped; while the Lord Mayor, and those of the bench who sat on the left side of the bench were seized with the fever. Many of the Middlesex jury, who were on the left side of the court, died, but the London jury who were opposite to them received no injury. These facts prove the necessity of cleanliness, free ventilation, and the importance of removing all decaying animal and vegetable substances from the vicinity of human habitations.

Immediate Causes of Infection. —Contagious diseases are propagated by actual contact, by the medium of the air, and by substances which have been near the sick or in contact with them.

To Prevent Infection. — From what has been already said, some important suggestions will doubtless occur to the reader as to the means of checking or even of preventing the spread of fever. But a few particulars may be properly added. Let communication with the sick by actual contact be as far as possible avoided. Let the patient be lightly covered with the bedclothes, his chamber freed from all unnecessary articles of furniture, and kept perfectly clean; the sheets and body linens frequently changed and removed from the sick room, as well as all substances producing, or likely to produce, any smell; and above all things let the chamber and the adjoining apartments and passages be completely and freely ventilated by opening opposite doors and windows; for although contagion may be carried by the air, it becomes inert when, instead of being concentrated, it is sufficiently diffused.

Special Preservative against Infection.—In a lecture delivered in the Royal Institution, on the 21st January, 1870, Professor Tyndall proved, by a series of interesting experiments, that the surest filter in a contagious atmosphere is cotton wool. "If a physician," said the Professor, "wishes to hold back from the lungs of his patient, or from his own, the germs by which contagious disease is said to be propagated, he will employ a cotton wool respirator. In the crowded dwellings of the London poor, where the isolation of the sick is difficult if not impossible, the noxious air around the patient may by this simple means be restored to practical purity. Thus filtered, attendants may breathe the air unharmed, for it is exceedingly probable that the germs which lodge in the air-passages, and which at their leisure can work their way across the mucous membrane, are those which sow in the body epidemic disease. If this be so, such disease may be warded off by filters of cotton wool."

Disinfectants are substances which, used either in fumigation or otherwise, have often a most valuable effect in checking and even destroying the contagion of malignant diseases. They should always be employed in connection with free and thorough ventilation, without which they may be entirely useless.

Fumigation with the mineral acids is frequently a most effectual method of checking the progress of contagious diseases. For this purpose the nitric and muriatic acids seem to have equal power; but the former is to be preferred, because its fumes can be breathed with less inconvenience than the latter, by those who are obliged to be present during the process of fumigation. The nitrous acid vapour, as a fumigation, has been employed with the utmost success in typhus fever. As an evidence of the value of this method of disinfection it may be mentioned that Dr. Carmichael Smyth, of London, by whom it was originally practised, received from Parliament a premium of £5,000 for his discovery.

The nitrous acid vapour, so invaluable as a disinfectant in contagious fevers, is obtained by decomposing nitre by means of heated sulphuric acid, and this process may be performed in the following manner:—Put half an ounce of vitriol (that is to say, sulphuric acid) into a crucible glass or china cup, and warm it over a lamp or in heated sand, adding to it from time to time a little nitre. Several of these vessels must be placed in the sick chamber and in the neighbouring apartments and passages, at the distance of twenty feet or more from each other, according to the height of the ceiling and the virulence of the contagion.

Muriatic acid gas likewise affords an excellent means of fumigation in cases of contagious fevers. It can be produced with great facility. Put a pound of common salt into an earthen vessel, and pour over it from time to time a small quantity of sulphuric acid till the whole salt is moistened. The muriatic acid gas will thus be thrown off: but if the apartment be very large and the air very foul and offensive, a larger quantity of the gas will be produced by the application of a gentle heat under the vessel in which the salt and sulphuric acid are contained.

Sulphur as a Disinfectant.—Dr. James Dewar, of Kirkcaldy, was led, during the recent prevalence of the cattle plague, to study the subject of disinfectants. He found that sulphurous fumigation was entirely operative in preventing the spread of disease. His process is simple:—Into a chafing dish of red-hot cinders is placed a small crucible, into which is dropped a piece of sulphur stick of the size of a man's thumb. This will fumigate a large cowhouse in twenty minutes. Dr. Dewar also found that out of twenty homesteads, when fumigation with sulphur was used, there was no case of fatal illness of any kind. Besides being useful as a preventive, sulphur, in virtue of the persistency with which it hangs about, proves serviceable in limiting the spread of contagion, in evidence of which a man's clothes, or even his hair, saturated with the fumes, will destroy the germinating power of any vital cells with which they are brought into contact.

Carbolic Acid as a Disinfectant.—It is well known to chemists that the oxygen of the atmosphere—which, acting on metal exposed to it, produces metallic oxides (such, for example, as the rust upon iron)—is the same agent which effects the decomposition of animal substances, known as putrefaction. Various methods have been adopted to interrupt or to prevent this process. One of these methods consists of producing a vacuum, and thus excluding the active element in decomposition from the animal and vegetable substances to be preserved. Carbolic acid, however, combined with from ten to twenty-five parts of water, is possessed of antiseptic power apparently as efficient as the exclusion of oxygen. It forms, therefore, an admirable disinfectant, and will probably be found equal in this respect, if not superior, to

the chlorides so successfully used for that purpose.

Charcoal as a Disinfectant. — Peat and other forms of charcoal, including that which is made from seaweed, possess great antiseptic properties. Vessels that have contracted impure smells may be at once rendered sweet by rinsing them with water mixed with charcoal powder. Fish and meat too long kept may be rendered perfectly sound and free from any offensive odour by putting a few pieces of charcoal into the vessel in which they are boiled. At a recent pharmaceutical conference it was stated by Mr. E. Stanford that the stems of the tangle, which are often thrown up after a storm on the shores of the Hebrides, and are frequently many feet in length and as thick as the wrist, can be converted, by being properly burnt, into excellent porous charcoal, resembling what is produced from animal matter, and having admirable properties for filtering water.

Sir William Burnett's Disinfecting Fluid.—A solution of chloride of zinc, known as Sir William Burnett's Disinfecting Fluid, has been found most useful as a purifying agent, and in removing and destroying contagion. In purifying sick rooms or crowded places the solution should be moistened by means of a piece of flannel cloth, about three or four feet square, attached to a long rod and waved through the air for ten minutes at a time; in addition to which the floor should be mopped or sprinkled over with the same dilute solution, if necessary, several times a day, and a small quantity put into the close stools and bed pans. The waterclosets should also be cleansed with it, and two gallons occasionally thrown down each. When floors and woodwork are washed with the solution, the use of soap or soda should be avoided immediately before or after its application; and whitewashing should not be applied to any part recently washed or sprinkled with it.

Chlorides of Soda and Lime.—Nothing can be more decisive than the evidence by which the importance of these substances has been demonstrated from time to time since their first discovery and application; and the use of them cannot too strongly be recommended in all cases where danger of disease arises from putrid or offensive effluvia from vegetable or animal matter, or where the danger of infection exists, owing to contagious fevers or other diseases of a malignant character. In all cases of typhus, putrid sore throat, measles, small-pox, and other diseases of an infectious kind, the sick apartment should be freely sprinkled with diluted chloride of lime twice a day or oftener; and it is advisable to leave a small quantity exposed in a dish or basin, not only in the sick room, but in the adjoining passages and apartments, especially if there are other persons resident in the same dwelling with the patient. The chloride of lime can be easily obtained from a chemist. Macdougall's disinfecting powder is excellent for every purpose for which chloride of lime is used.

Soft Water.—Soft water is a much more powerful solvent of vegetable matter than hard water. It is for this reason that in making tea or boiling vegetables with hard water a little carbonate of soda is of great service. Soft water is also of great importance in brewing, from the facility with which it dissolves the extractive matter of the malt. The instincts of the lower animals prove the superior wholesomeness of soft water compared with hard. Horses prefer the former; and if from inattention they are confined to the latter, their coats become rough, and they suffer from gripes. Pigeons refuse hard when they have been accustomed to soft water. That soft water is more wholesome for man is an opinion of several eminent physicians, who have held that the tendency to goitre or swelling of the throat occurring in certain districts, is to be attributed to the practice of using hard water for domestic purposes. Hard water exposed for a few days to the action of the atmosphere will become quite soft, and will be found suitable for several household operations.

Hints on Musical Instruments. — The following paper on Musical Instruments is one of a series to be contributed specially for *Best of Everything*, by an eminent professor of music.

The Choice and Purchase of Pianofortes, &c. — The pianoforte having become the most popular of all musical instruments, and a necessary feature in the contents of every well-furnished house, large numbers are annually manufactured. The unthinking demand by the public for cheap pianos, and the readiness with which those advertised at low prices are purchased, have led, however, to a system of making up, under a gaudy exterior, pianofortes which are utterly worthless as musical instruments. Attempts have also been made by makers of reputation to supply good instruments, under the name of "pianettes," "schoolroom pianos," &c., at low prices, but at the sacrifice of several important points, such as size, tone, and mechanism; so that they count little against the general axiom that cheap new pianos should be avoided. No piano offered at £20, new, should be looked at, nor any advertised by "widow ladies" at half their stated cost. For thirty guineas a fair instrument may be secured, but the best makers charge from 45 to 100 guineas for upright pianos, and from 80 to 250 guineas for their "grands." If you cannot afford a good new piano, be content with one at second-hand, which, if good, will be worth infinitely more than a cheap and gaudy new one. At sales by auction good second-hand instruments are often to be met with, but caution must be observed. See that the "compass" of the piano is complete; that is, that it contains at least eighty-two keys, or $6\frac{7}{8}$ octaves. Take a C tuning-fork of concert pitch, and, striking the note C on the piano, test whether it stands to its proper pitch. But the safest mode is to secure professional advice in making the choice, for which a guinea at the utmost will be charged. Do not, however, purchase an instrument whose tone strikes your own ear as unpleasant.

The Preservation, Tuning, &c., of the Pianoforte.—As sun and damp are mortal enemies of the piano, do not place it against an outer wall, in a draught, or opposite to a window, except one of northern aspect. A side light is convenient to the player. Engage a tuner by the year, and let him tune it monthly, or at least quarterly. A professor of music should not be asked to tune a piano, it being considered *infra dig.*, and, in fact, an entirely different vocation. Keep the piano locked if children are about. Wipe the keyboard with a soft duster before and after use. Avoid frequent use of the soft pedal, as it puts the instrument out of tune.

Advice on the Three Years System.—By this plan a piano becomes the property of the hirer after paying a certain sum quarterly for three years. It is, however, open to important objections. Should a single default of payment occur, all that has been previously paid is lost. Common pianos at extravagant prices are too often palmed off by this method, and in every case the buyer pays dearly for the accommodation.

Practising the Pianoforte.—The pianoforte, like every other piece of mechanism, requires regular use to keep it in proper working order. For the player's own improvement also, daily practice is imperatively necessary, to the extent of two hours at least. The early morning is the best time for practice. According to the age, ability, and time at disposal of the pupil, the music-master will arrange what music is to be practised; but in no case can the daily playing "at sight" of new music, the vigorous practice of scales and exercises, and the repetition of pieces already learned, with a view to the acquirement of additional finish and taste, be safely ignored. The choice of music is of great importance. The works of Beethoven, Mendelssohn, and Heller, will afford rich delight to the earnest student. These belong to what is termed "classical" music, which should be preferred by all who wish to acquire per-

fect execution and correct taste. Some of the popular music of the day possesses many pleasing qualities, but, as a rule, it is not worthy of the serious attention of those who wish to study the art in its highest form.

Other musical instruments should be purchased and studied with a similar care; remembering to engage a professor of the particular instrument required: not a trumpet player to teach the organ, nor a violinist to select a pianoforte.

Hints on Bees and Bee-keeping.—Philosophers and poets, from a very remote period down to the present time, have devoted themselves to the study of the organization, the habits, and the instincts of the bee,—a creature whose natural history presents us with an array of facts in the highest degree instructive and entertaining. A few hints on the subject, condensed as much as possible, will not be unacceptable to our readers.

Natural History of the Bee.—A community or family of bees is generally understood to contain from twelve to thirty thousand individuals. About nine-tenths of the whole number are common or working bees, and the remaining tenth male or drone bees, and at the head of the commonwealth there is a personage who is entitled "the queen" or mother bee.

The Queen or Mother Bee.—This important individual differs in her appearance and her functions from all the other members of the family. She is darker, longer, and more taper in figure than the common bee; her legs are longer, although her wings are shorter, and underneath her colour is tawny or yellowish brown. She is furnished with a sting like the working bees, which, however, she uses, it is said, only on very important occasions. She is the mother of the whole community; all the working bees, the drones, and those intended to be future queens, proceed alike from her eggs, of which, according to some writers, she has sometimes been known to produce a hundred thousand in one year; a number not too large when new swarms are considered, as well as the deaths and casualties continually occurring among the members of the hive. The mother bee not only occupies the maternal relation to her immense family, but exercises over them an influence analogous to that of a sovereign, a circumstance from which her appellation of queen is justly derived. On her presence depends not only the prosperity but the very existence of the bee nation; and with this influence exercised by the queen herself, a corresponding instinct is in operation in all the then members of the community, which may justly be compared with what we understand by the term "loyalty." The absence of the insect monarch, whether from death or any other cause, speedily entails disorder, confusion, and anarchy; all labour is terminated, and the bees disperse.

The Working Bees.—These are distinct, both from the queen and the drones, being smaller, and having the charge of making incessant provision for the well-being and sustenance of the whole family. Their daily toils are an illustration of what is called the "division of labour,"—the value of which was unknown to man for centuries after the bee had been taught to avail herself of the system. Some of the workers occupy themselves in making the combs from the wax, which is a natural secretion; others keep the eggs warm which are to produce future members of the hive; others engage in feeding the queen and the larvæ or young brood; others take charge of the ventilation and cleansing of the hive; some take on them the duty of guarding the common habitation from attack, and warning its inhabitants of impending danger; others wing their way to the fields and gardens, and collect with indefatigable industry the farina and honey that are so imperatively required.

The Drone Bees.—These are larger, darker, and more hairy than the workers; they have no stings, their motions on the wing are heavier, and the sound of their humming so much deeper as to give rise to their characteristic ap-

pellation. The drones take no part in the process of collecting or storing honey, nor, indeed, in any of the various industrial occupations in which the workers engage. Neither their instincts nor organization adapt them to these offices; but Infinite Wisdom has called them to the performance of functions no less important. Some highly interesting and marvellous instincts are illustrated in the history of the drones. They are, as already stated, unproductive; that is to say, they do nothing to add to the wealth of the community. As mere consumers, the drones seem at certain periods to be regarded by the working bees as an expensive as well as a useless class, only worthy of being destroyed or expelled. Accordingly, if the necessity of swarming ceases, and no royal cells are constructed, or the royal brood have been prematurely destroyed, the instinct of the workers prompts them to the expulsion of the drones, against whom a fierce war is declared, ending in their extermination. On the other hand, if the queen bee is forcibly taken from the hive, the instinct of the workers leads them to spare the lives of the drones, who continue to be boarded and lodged at the public expense, in consequence, apparently, of the presumption, that although the cost of their support may be considerable, circumstances may arise to render the very existence of the community dependent upon them.

The Swarming of Bees. — The instinct which prompts these wonderful insects to issue from the hive and establish new colonies, is called into exercise when the hive contains too great a number of inhabitants, and there is not a sufficient space either for breeding young bees or storing honey. The crowded state of the hive renders emigration indispensable, and arrangements are made for the important event. Royal cells are formed, and young queens are anxiously and tenderly fostered in them, since without them emigration is impracticable. In these circumstances the bees cease to gather honey, and a period of idleness occurs which terminates with swarming. The owner of the bees, therefore, must either multiply the number of his hives, by allowing them to swarm, or he may prevent the swarming by furnishing additional accommodation for breeding and collecting honey. This process is known as the Depriving System. It consists in removing a considerable part of the store of honey already gathered, and placing in immediate connection with the store-hive an additional receptacle, such as a box, glass, or a second hive, in which the bees can find ample space to carry on their industrious operations without having recourse to emigration to a different locality. The temporary or additional receptacle, if placed above the original hive, is called a *super* or *duplet;* if placed beneath the hive it is termed a *nadir*, and if a second *super* is required it is denominated a *triplet*. The various methods for removing honey on this system involve a number of practical details, which would be incompatible with the limits of this brief sketch. Bee-keepers will find ample, as well as minute information, in various treatises on the subject, but we shall give our readers, in our next part, some details of an interesting and instructive nature on the hive and its best position, food for bees, &c.

How to Destroy Crickets. —A single cricket in the kitchen grate will disturb a household. There is a superstition which prevents uneducated persons from attempting the destruction of the insect. It flaps its wings, producing its well-known sound, chiefly at night. A little ginger cordial being placed in a dish before the fire will attract it, and on partaking of the liquor it will die. The best mode of destroying the insect in its nest is to put snuff into the chinks of the grate.

Hints on Nursing.—This subject has been so frequently brought before the public of late years, that a few hints on the best method of nursing the sick will not be out of place in *Best of Everything*.

Three things are essential in a sick

room—good ventilation, perfect cleanliness, and quiet. The nurse must have a light step, and move gently with noiseless garments; the rustling of silk, folding or unfolding of paper, turning over leaves of books, whispering or loud talking, are most irritating to the excitable nerves of a sick person. Avoid all noise in touching the fire. A small pair of tongs, almost like a sugar-tongs, can be procured at the ironmongers, and will be found peculiarly useful in a sick room. The nurse ought to have everything she is likely to require ready to her hand; a supply of coal, sticks, or fire-lights, and a small kettle to stand by the side of the fire. Warm water is always necessary, plenty of fresh cold water, and the means of heating any small thing (such as barley water, rice, milk, &c.) that the patient may wish for without delay, is most desirable.

Some cups, glasses, and spoons should stand on a small table, and a tray on which to lay down those things that have been used. Never give food or medicine in a cup or glass that has already been used, without washing it, and this should be done in another room. Whatever the patient requires, either medicine or refreshment, ought to be brought to the bedside ready for him to take; the medicine poured out, and the food exactly the right heat and seasoned in the proper manner. Never allow particles of food or medicine to be dropped on the sheets or counterpane, but have a napkin ready to lay over the bed when administering any liquid. There are several kinds of tables for the use of invalids confined to bed; some of these have a sliding top, which can be drawn out as far as required, and which holds the tray with refreshment steady, without pressing on the bedclothes, a great advantage in the case of a broken limb, gout, &c.

When a patient is too ill to leave the bed, or in case of fracture, the bed linen may be changed with very little inconvenience to the patient in the following manner:—Roll the under sheet from the edge of the bed towards the middle, roll half the clean sheet (which must be well aired) in the same manner; lay the two rolls side by side, and gently lift the patient over them both, on to the clean sheet, remove the soiled one, and unroll the half of the clean sheet and lay it smooth. To change the upper sheet insert the edge under the blankets at the foot of the bed, above the soiled one, and draw it gently up to the top, then draw down the soiled sheet. All the linen required for a sick person should be frequently changed and well aired before changing, and it should generally be put on warm. When putting on a fresh night-gown, do not take it from the fire till the patient is quite ready, then roll it up, and it will be hot when brought to the bedside. Toilet vinegar is extremely refreshing when sprinkled about a sick bed, and a few drops in the warm water in which the face and hands of the patient are sponged will be found very pleasant. An air pillow is often a great comfort to an invalid, as well as an india-rubber bag to hold boiling water, to be applied to the feet when very cold; the bag retains the heat for many hours, and being soft and yielding, it can also be applied as a sort of dry poultice when heat only is needed.

It is almost always possible to ventilate a sick room once a day. The patient must be carefully protected from draught, either by a curtain, a screen, or a shawl thrown over the bed, and if necessary over the face. Close the door and open the window, both at top and bottom, about six inches, and let it remain open from five to fifteen minutes, according to the state of the patient; but if this be considered too dangerous, the door may be set open for a short time, and the nearest window on the staircase opened, which will admit fresh air with less risk.

All preparations for the night in a sick room should be made early. A small table should stand at the bedside, with the medicine, drink, &c., requisite for the night. If the patient be so ill as to require the nurse to watch all night, let her be near enough to the bed to see the slightest stir, to hear the

faintest whisper. The best light is one of Field's night lights in a tin shade; this will give sufficient light for anything the nurse may want, and can easily be so placed that no ray of light may fall on the bed or the patient. The fire must be kept up during cold weather, and must be stirred and replenished without the least noise; and this can only be done by putting coals on with the fingers and stirring with a bit of firewood. The medicine to be given during the night, and the glass or spoon in which it is to be administered, should be laid ready, as well as any drink that is likely to be needed. Give these to the patient without asking questions or disturbing him more than is absolutely necessary. A few minutes' conversation, shaking up the pillows or bedclothes, without being requested to do so, will often break the rest of sick persons, and by awakening them completely makes them restless and feverish.

Perfume for a Sick Room.—It is said that an agreeable balsamic odour may be diffused through a sick room by means of a few drops of oil of sandal-wood dropped on a hot shovel.

Preparation for the Hair.—Add two ounces of almond oil, and one of glycerine jelly, to the juice of six limes or lemons strained through muslin, and shake all together, when it will be ready for use.

Novel Egg Boiler.—An ingenious apparatus has been proposed for this purpose by W. Smith, of Colchester, to which the name of "The Whistler" is given. It consists of a cylinder of sheet copper, in which the eggs are placed. Attached to this cylinder is a whistle, which, acted on by the steam, gives notice that the cooking of the eggs is completed, and renders it unnecessary to watch the process.

Dreams.—We all dream, old or young, either frequently or at rare intervals. We are influenced by our dreams; some as by superstition, others by a speculative philosophy, and all by the ordinary impressions of curiosity or wonder. Dreams partake of the peculiarities of the minds of those to whom they occur—that is to say, they are reflections from within more commonly than impressions from without. And herein may be recognised the distinction between our waking and our sleeping sensations.

But dreams may be suggested by external influences. Dr. Gregory related of himself that, sleeping with a hot-water vessel at his feet, he dreamt that he was ascending Mount Etna, and treading upon burning lava; a blister applied to the head has caused the sleeper to dream of being scalped by wild Indians; sleeping in a smoky room has given rise to dreams of fire; a fragrant flower applied to the nostrils suggested a pleasurable dream-walk in a garden.

A few months ago a friend of ours had been discussing the peculiar instincts of animals, and their sense of the coming on of storms. After this he dreamed he was a Worcestershire short-horn, and had a number of companions. Signs of a storm appeared in the sky; and he remembered distinctly, although he was a cow, watching, with a sense of great delight, the beauty of the preliminary tokens of the storm. With the other cows he strolled towards the shelter of an adjacent tree, and waited until the storm should break. He was chewing the cud, and distinctly remembered wagging his tail. Yet all the time he had full reasoning faculties, and a lively sense of the beauties of the scenery.

Unusual impressions which have been recently experienced will often leave a tendency to dream of similar occurrences in an irrational form, until the memory of the exciting cause has passed away. A stormy passage by sea, to an unaccustomed person, will impart a tendency to dream, for several successive nights, of storms and shipwreck. Walking or riding in a tempestuous wind may leave, for some time thereafter, disordered night thoughts of upheaving earth, crumbling edifices, and uprooted trees.

Thus the character of dreams may be said to spring from three causes: 1st. The peculiarities of the mind, as de-

veloped by a speeial eourse of life. 2nd. Present impressions from external influences, setting our thoughts in aetion without the eontrolling power of reason. 3rd. The memory of reeent oeeurrenees, by whieh the waking faeulties have been strongly exeited, leaving, as it were, an echo of those highly wrought sensations. These eauses may operate singly or unitedly. A single cause gives the most simple form of dream; mixed eauses produee those confused impressions whieh we ean searcely remember when we awake, and that seem full of strange and rapid ehanges.

Of soldiers, in a state of strife, it may be said,—

"We eat our meat in fear, and sleep
In the application of those terrible dreams
That shake us nightly." *Shakspeare.*

To the ambitious man and the enthusiast—

"Glorious dreams stand ready to restore
The pleasing shapes of all you saw before."
Dryden.

The thief eoveting his neighbour's goods, or the miser dreading the thief,—

"Sleeps but once, and dreams of burglarie."
Bishop Hall.

The lover, wakeful to the beating of a longing heart,—

"He came—O hope! he hastened to my seat;
I saw, and almost dreamed him at my feet." *Dr. Brown.*

The dreamer, fevered by some mental or bodily disturbance,—

"When choler overflows, then dreams are bred
Of flames, and all the family of red;
Red dragons, and red beasts in sleep we view,
For humours are distinguished by their hue." *Dryden.*

The dreamer of nervous and melancholy eonstitution,—

"While Reason sleeps, bending the vigour
Of manly actions down, through mournful shades
Of listless pleasing woe, she [Melancholy] impious leads
The dreamful fancy." *Meikle.*

Dr. Watts wrote thus forcibly of dreams:—"Even the remembrance of our dreamings will teach us some truths, and lay a foundation for a better acquaintance with human nature, both in the powers and the frailties of it."

The ancients believed in the prophetie inspiration of dreams, and founded their arguments upon scriptural authority, supported by numerous testimonies of asserted marvellous fulfilments. A rare old book, "The Divine Dreamer," 1641, upholds the prophetie theory upon these grounds. The author says:—"I am of opinion with Volaterans, that many times a person going to his rest, not dosed with bad affeetions, nor superfluity of food, but being virtuously minded, and healthfully disposed, his soul in sleeping may foresee things to eome: for the soul, whieh of itself is divine and eelestial, not being offended with any evil eogitations, or over-bad meats, is at free liberty, and best performeth her actions when the body sleepeth, not being busied with other matters."

The same author remarks that "Dioseorides, Pliny, and Galen say that there are "divers meates whieh doe ingender and eause sorrowfull dreams, as *beanes*, *pease*, *eoleworts*, *garlicke*, *onions*, *leekes*, and *chesnuts*, and all opening roots; the flesh of a boare, or old hare, and beefe; all water-fowles, as duek, goose, and the like." The author then gives a list of artieles that cause pleasant dreams, sueh as "anniseeds, saffran, burrage, balme," &e. Then he proceeds to make mention of the wonderful power of "a eertaine unguent prepared by apotheearies, whieh is ealled *Populeon*, in regard of the juice of poplar leaves; if the temples be rubbed therewith and ehafed, with the liver, veins, the braneh es of the great arteries, and the soles of the feet, it eauseth the most delightful and faeetious dreams." The most wonderful and magie exeitant of dreams, almost at command of the will, was a eelebrated "oyntment," for whieh the reeeipt is given; but as the chief ingredient eonsisted of "the fat of young infants taken out of their graves," we must dismiss "The Divine Dreamer," or parental readers will be likely to dismiss ourselves. We have

mentioned these strange notions (a copy of the old book having fallen into our hands) as evidences of the extraordinary opinions that prevailed in times far removed from the *Best of Everything.*

"Men dreamed by day, and not alone by night—
Waiting for Reason's sun to shed a truer light."

The most concise and clear theory of dreaming that we have been able to discover, after an industrious research, is the following, which we find in Macnish's "Philosophy of Sleep:"—"In perfect sleep there is a quiescence of all the organs that compose the brain; but when, in consequence of some inward excitement, one organ or more continues awake while the remainder are in repose, a state of incomplete sleep is the result, and we have the phenomena of dreaming. If, for instance, any irritation, such as pain, fever, drunkenness, or a heavy meal, should throw the perceptive organs into a state of action, while the reflecting ones continue asleep, we have a consciousness of objects, colours, or sounds being presented to us; while, in consequence of the repose of the reflecting organs, we are unable to rectify the illusions, and conceive that the scenes passing before us, or the sounds that we hear, have a real existence. This want of mutual co-operation between the different organs of the brain accounts for the disjointed nature, the absurdities, and incoherencies of dreams."

The dreams of childhood should be a matter of parental solicitude. Children dream earlier and more frequently than may be supposed. And as dreams are, for the most part, the reflections or echoes of waking experiences and impressions, it is seriously wrong to impart to children stories of ghosts, "old bogies," and black men "coming to carry them away." Dreams of childhood leave an indelible impression upon the mind, and without strength to bear the exhaustive effects of fright, our little ones suffer more acutely from night terrors than those of maturer growth.

Hints on Choosing and Cleaning Plate.—Few young couples in the middle rank of life, if left to their own resources, are able to act upon the old and very judicious counsel, "Buy your plate of solid silver, it will always look well and retain its value." It has become the custom of late years to present a bride with articles of silver plate as wedding presents, but generally these are elegances more than necessities, and the spoons, forks, ladles, &c., have to be provided with the rest of the furniture. For those who can afford it, nothing is to be compared for durability and appearance to silver, whether new or second-hand; but the best substitutes that can be found are articles electro-plated on white metal. These ought to be purchased of the best quality; inferior electro-plate becomes quickly tarnished, and requires to be cleaned so frequently, that very soon the silver coating wears off, leaving the baser metal underneath exposed. Choose also the plainest patterns; they are the easiest to clean, and presenting few obstructions to the soft brush in cleaning, the silver is not so soon worn off. Gas tarnishes all silver, and the more impure the gas is the quicker does it cause silver to assume a yellowish black appearance; therefore electro-plate, where the silver coating is thin and easily worn through, should not be left exposed to the action of the gas longer than is absolutely necessary, but when cleaned after use should be covered with baize and laid aside until again required. Spoons, forks, &c., should be carefully washed in warm water after being used, and thoroughly dried; a rubbing with a dry wash-leather will generally be sufficient to preserve the polish, but once a week at least they should be cleaned, along with the other articles of plate in constant use. Many plate powders are sold for this purpose; some of them very deleterious from the mercury they contain, others comparatively harmless; but our experience has been that nothing excels good washed whiting moistened with

spirit of wine or whisky. This should be rubbed over the plate with a soft rag, then allowed to dry, and brushed off with a soft plate brush; the spirit removes all spots, and a dry wash-leather will give the plate a good polish.

To Choose Cutlery.—Under this title we can only speak of table knives and carvers, steel forks, except for the purpose of carving, being entirely out of date. Carvers are of two kinds, the ordinary large size for cutting joints, and a smaller size with long handles for carving fowl. They ought to be of the best quality, with ivory balance handles, and the fork ought to have in each case a spring guard to prevent accident in the case of the knife slipping. Table knives, both large and small, should be of the best, with ivory balance handles. Some knives are made with the shaft or tang of the blade riveted at the end of the ivory handle, but this generally makes a dark shade all down the handle, which is unsightly, although they are intended to obviate the loosening of the handles by the carelessness of servants in putting them into very hot water. Knives, unless very greasy, should only be wiped with a wet cloth previously to being cleaned. To take stains out of the handles, common salt, wet, and rubbed on with a bit of flannel, will generally be found effectual. When table knives are laid by they should be rubbed all over the blades with lard or oil, folded in coarse brown paper, and kept in a dry place.

To Preserve Harness.—Harness requires the application of neats-foot oil every year, and it should be washed every three or four weeks in strong suds of Castile soap, and kept in a dry place. It will thus be prevented from becoming hard, dry, or rotten.

To Destroy Ants in a Greenhouse.—Place some arsenic, mixed with sugar and water, in a saucer, which cover with a slate, leaving room for the insects to pass between the slate and the saucer. A stone ought to be placed on the slate to prevent any other creature but the ants from getting access to the poison. Lime water, poured into the nests, will also destroy them.

Best Way to Water Plants in Pots.—It is very important that all collections of plants be looked over every day, and such as are dry watered. The space between the surface of the mould and the margin of the pot should be filled with water, and if that space is very shallow, it should be filled two or three times, and if the soil be very dry, so as to be shrunk away from the sides of the pot, after the first dose of water is given, draw the finger all round the opening of the soil; this detaches as much mould as will fill up the gap, and the water afterwards poured on will find its way through all the mould. In summer plants require supplies of water every day; in winter once a week. Saucers, made of the same material as the flower-pot, are of great use. The saucer retains the moisture that has found its way through the mould, and affords a cool bottom, which is grateful to plants of all kinds.

The Sewing Machine.—About the year 1840 a poor American mechanic, named Elias Howe, conceived the idea of making a machine, somewhat like the stocking frame, which should execute a kind of needlework suitable for most of those articles of dress and household use that had hitherto been solely accomplished by hand sewing. After many months of incessant labour, he succeeded in making a machine that would work satisfactorily, and obtained a patent for it in 1841. But though our American cousins are distinguished for their quick inventive genius, and their many contrivances for lessening labour, they failed to appreciate the invention of their countryman as it deserved. Howe, therefore, determined to try his fortune in England, where he did not meet with more success than at home, and he eventually sold his patent for £250, and a royalty of £3 per machine, to Mr. Thomas of London, who used it successfully in his own business of a stay-maker. Howe,

on his return to America, found himself involved in a lawsuit with a firm who had pirated his patent, but he succeeded in establishing his right, and has lately died a wealthy man. Howe's machine worked what is called the Lock-stitch; but since his invention became known, many changes have been introduced by other manufacturers, so numerous that it would be quite impossible to speak of each in a book of this nature.

Sewing machines are manufactured for all purposes for which hand sewing was formerly employed, and they are made expressly suited for the work they are required to perform, which is as various as their sizes; for they are made so large that they can only be driven by steam power, and so small that one designated the "Fairy" looks like a child's toy, yet it executes its appointed task deftly and well. Sail-making, harness-making, boot and shoe making, are among the heaviest kinds of labour they are applied to, while the same or similar mechanism performs the most delicate embroidery, braiding, and a machine has even been invented to work button-holes.

The diversity of appearance and mode of operation in sewing machines is as great as the variety of their application, and the opinions as to their respective merits are as numerous as either; we will, therefore, endeavour to point out the most prominent points of difference in the several machines, and leave our readers to form their own conclusions.

Hand Machines.—These are much cheaper than the foot or treadle machines. The majority of them form what is called the chain-stitch, and which makes a ridge on the wrong side, similar in appearance to the old-fashioned tambour stitch; this is supposed to be less durable than a lock-stitch, and to give way readily if the thread be improperly fastened; our own experience is, that if carefully done with a good machine, strong fine thread, and a small, neat stitch, the work will be found sufficiently strong for the ordinary purposes of making ladies' and children's cotton and muslin under-clothing. There are a great many of the hand machines, differing from each other but in minor particulars: of these, Weir's £2 15s. machine seems to be a general favourite; it is a very simple and efficient as well as cheap little machine. Some hand machines make the lock-stitch, and many manufacturers of treadle machines have a hand machine of similar construction.

The Treadle Machines. — The Wheeler and Wilson machine has long been a favourite with the public. It differs from most others, not only in the mode of performing the stitch, but in the position of the work, which passes from left to right along the stand, instead of passing from the worker across the left side of the stand. This machine forms a lock-stitch with two threads, the upper one taken from an ordinary reel, and the lower wound on a small metal bobbin inside a revolving hook, which locks one thread into the other, forming a stitch the same on both sides of the cloth. This machine is said to be well suited for dress and mantle, as well as shirt makers, by whom it is much used. Wheeler and Wilson also manufacture a hand machine, and one for making button-holes.

The Wilcox and Gibbs machine makes a stitch peculiar to itself, which is called after the name of the inventor; these machines, both hand and treadle, work with one thread only; they are easy to move, and very expeditious, as well as neat in the work they turn out; they seem simple in their mechanism, and peculiarly noiseless.

Howe's original machine formed a lock-stitch with two threads, the upper one taken from the common reel, and the under one from a small steel reel fastened inside a steel shuttle; this mode of forming the stitch is still used in the Thomas, Singer, Simpson, Florence, Wanzer, and some others. The shuttle stitch is similar in appearance on both sides of the work. The machines using it are heavier and more noisy than the Wheeler and Wilson, but they are admirably suited for heavy work, and for manufacturing purposes.

The Grover and Baker machines work with two needles and two threads, which form a ridge on the underside of the cloth; the stitch is particularly elastic.

Hints on Choosing a Machine.—If expense is no object, and the intending purchaser is able to work a treadle machine, it is certainly the best, whether a double or single thread machine, and will be found the cheapest in the end. To ascertain the kind of machine most suited to the work which it is intended to perform, it is well to visit the sale-rooms of the principal manufacturers, where the attendants are always willing to afford every information, and to permit purchasers to see if they can make a successful attempt at using the machine. Choose one that seems easy to learn and easy to work, as well as simple in the mode of changing the needle, cotton, &c. Endeavour to take out and reset the needle. Change the cotton. Alter the length of stitch and the tension. Instructions are generally given in the way of using the machine free of charge, and it is well to try several machines before deciding on the final purchase.

Some makers hire out their machines, allowing the user the option of purchasing afterwards; others arrange for monthly payments. Wilcox and Gibbs send their machines on trial for a month, without any charge, to any intending purchaser, and make arrangements for monthly payments with the poor. A mahogany or walnut stand with a cover is very convenient, as dust is most injurious to sewing machines, and the "Davenports" are extremely ornamental as well as useful.

Hints on the Management of Chickens.—

"In May, chickens thrive all day."

May is the month for chickens, although it is true that many thousands have been hatched in the earlier months.

The weather begins to be warm, and the young chickens which have been hatched during March and April are usually the strongest and best, particularly if of choice kinds and intended for exhibition. Opinions vary with respect to the treatment of young chickens, but we shall give a few directions suggested by a lady who has had a long and profitable experience in rearing all kinds of poultry, both for exhibition and the table.

After emerging from the shells, the chickens should not be removed from under the hen; they are at first weakly and wet, but in a few hours they become thoroughly dry, and it is not until their little quaint heads peep from under the feathers of the hen that she should be removed from the nest. Many persons imagine that the chickens require feeding as soon as hatched; this is an error. At the time of hatching, the remains of the yolk are drawn into the digestive canal of the chick, and constitute its first food; this will last it from twenty to thirty hours, and then the chickens are strong and active on the legs, and ready to eat with avidity.

As regards the first food for the young birds, there is nothing approaching in value to a mixture of equal parts of grated bread, yolk of hard-boiled eggs, and oatmeal, slightly moistened with water. This is the best food for the first fortnight; then add gradually to it groats, hemp seed, and green food, such as cress, lettuce, cabbage, and leeks, chopped fine. If the weather is cold and wet, add a little powdered pimento to the food occasionally, also a little finely minced meat as a substitute for worms and insects, fresh curd, and hard-boiled eggs, mashed up with the shells. Feed the chickens early in the morning, and often during the day, giving but little at a time; the water vessels should be shallow and frequently refilled, and so arranged that the chickens cannot get into them. Throw the food on the ground to the chickens; they will then pick up gravel along with it, which is necessary for the digestion of their food. Of course there is not so much necessity for a substitute for the natural animal food when the hens have a free range, and can scratch for worms and insects for the brood. Chickens sometimes will not get their feathers properly; this may arise either

from the cold of the weather or from delicacy. In either case they should be highly fed; bread soaked in ale, or even in wine, may be necessary, and a plentiful supply of burned and crushed oyster shells to provide them with lime.

IT IS IMPORTANT THAT A HEN WITH CHICKENS should be very well fed. As Cobbett used to remark, "If she does not give milk, she gives heat;" and practical experience, as well as theory, proves that animal heat requires food for its maintenance. A hen with chickens, if poorly fed, drags her progeny about in search of food, taking them through the wet grass, and wearying them with over-exertion; but if well fed, she broods them carefully, and only scratches to supply them with grubs and dainty animal food. Both hen and chickens must be carefully and warmly housed at night, and never allowed out until the dew is quite off the grass.

HOW TO FATTEN YOUNG POULTRY.—Boil Patna rice in skimmed milk and water till it is swelled out, and add a teaspoonful of sugar. Feed the fowls three times a day, giving them as much as will fill them at once, throwing the food, which must not be too moist, on the ground. Let them have clean water to drink. By this method the flesh will have a clear whiteness, and as the rice goes far, and is very inexpensive, the process will be found cheap and a saving of time. A portion of animal, mixed with vegetable food, causes poultry to thrive rapidly, but they should be confined to a vegetable diet some time before they are killed.

Boating.—There can be no doubt that the skill and hardihood of our sailors, by which we have gained our pre-eminence as a naval power, may be said, in a great measure, to be due to the ample opportunities for obtaining proficiency in nautical pursuits which are afforded by our numerous lakes, rivers, and estuaries. Almost all our sailors who have rendered themselves illustrious by maritime adventures or naval prowess have begun their career by becoming familiar in early life with the management of the boat, and by enjoying the healthful, invigorating, and manly amusement which it yields. And it may be safely affirmed that, while the management of the boat is eminently conducive to individual health and vigour, it tends in no ordinary degree to foster those habits on which our naval and maritime superiority depends. As our readers, therefore, may be presumed to take an interest in the subject, we shall present them with a few practical remarks on boats and their management.

ROWING BOATS may be divided into two classes, those intended for the sea, and not made expressly for speed, and those adapted to rivers and smooth water, and built for the special purpose of swiftness. The former class contains a large number of boats, differing from each other in figure and in name; and of these our maritime villages all round the coast exhibit numerous examples, which we need not describe. The latter class comprises such boats as are built for fleetness, and of which the most remarkable specimens are the racing boats so celebrated on the Thames.

THE OUTRIGGER BOAT is pulled by one person with a single pair of sculls, or by two, four, or eight oarsmen. The structure of all these boats is very much alike, the chief difference consisting in the position of the rowlocks; the boat intended for one rower having these exactly opposite each other, and those suited to two or more oarsmen having them placed alternately. A description of one of these boats as regards its build will be sufficient to indicate any of them.

THE OUTRIGGER SCULLING BOAT, intended for one person, is about thirty feet in length by only sixteen inches in breadth. The bows and stern are made very fine and sharp, the former being furnished with a fine edge of copper. It has no keel, and is frequently constructed of a single sheet of mahogany from stem to stern. The mahogany, which is called the skin of the boat, is, when sand-papered and varnished, about the thickness of a half-crown

piece, and is strengthened by ribs of oak placed in the inside at certain distances from each other. With the exception of three or four feet in the centre, the boat is decked either with thin mahogany or varnished canvas, supported on a slight frame. The parts of the boat thus covered in at each end are rendered watertight by a bulkhead towards the middle. The sculler occupies the centre of the boat, sitting either on the deck or a little below its level. Behind and in front of the sculler are the washboards, which on both sides meet the water streaks of the boat, and prevent any water that may be shipped from running into the central compartment. As already observed, the other outriggers intended for several rowers are built in a similar manner; those for eight oars being about twenty-five feet longer than the boat just described, and having the rowlocks placed alternately, instead of being opposite each other. The boats of which we have thus given an example being extremely light and narrow, and having no keel, are easily upset, for if they in the least swerve to either one side or the other, the rower is turned into the water. In rough water they are likewise easily upset, and even to step into them requires much care; indeed, the boat should be held by some one on the bank while the rower steps in and seats himself.

In learning to row or scull the young oarsman ought to avoid the outrigger, and commence his lessons in an ordinary skiff, a boat sufficiently light, and safe at the same time. He should, moreover, be able to pull a single oar well before he attempts to scull with two. After practising the art of rowing in an ordinary skiff, the learner may change from the skiff into a small gig, and afterwards, as he gains skill and confidence, try his hand on a still narrower boat.

In so practical a matter as that of rowing, written instructions are greatly inferior in value to a few judicious lessons from a practical hand, and some experience on the learner's part, not only as to what he should do, but what he ought to avoid,—experience often the more valuable because enforced by the mishaps which awkwardness and blundering commonly entail. Nevertheless, a few hints may not be altogether thrown away.

Rowing being simpler than sculling, we shall refer to it in the first instance, only observing at the outset that either rowing or sculling affords a good illustration of the use of what are called, in mechanical philosophy, *levers of the second class*, in which the weight to be moved is between the fulcrum and the power. In order to his first lessons the tyro oarsman ought to begin with a good steady boat; by no means an outrigger—he ought to keep a companion with him who knows how to pull. His teacher, who can either pull an oar or steer the boat, should encourage him to exert all his power and pull as wildly as he likes, catching crabs occasionally, by way of a lesson of caution. The learner must have his hands properly placed; the outside hand grasping the oar with the thumb above the handle, the inside hand holding the "loom" of the oar just where the rounded part joins the square, and keeping the thumb beneath. The elbows must be kept close to the sides, and well straightened immediately after the conclusion of the stroke. The stroke is finished by feathering the oar, and this is done by a turn of the wrist, which places the blade of the oar parallel to the surface of the water, instead of vertical to the surface as during the pull. A little imitation will show the learner how to feather his oar, but it may be remarked that feathering is not requisite at first. It will be time enough to exhibit this evidence of advancing skill as an oarsman when the oar can in other respects be properly used. In rowing, the body should swing to and fro in a straight line with the stem and stern of the boat, the rower should throw himself well forward in taking hold of the water with the oar, and he ought to lean well back in lifting it out of the water; he ought not

to dip his oar in the water beyond the blade; the stroke oar ought always to keep to that depth in which the learner can imitate him.

Sculling differs from rowing in this, that as both oars or sculls are pulled by one man, he has one hand only for each. The rower must occupy precisely the centre of the boat; he must pull with equal force with each oar or scull, and if he can feather them he must do so with both at the same instant.

Manœuvres.—In rowing-boats these are all alike in principle, and all applications of the mechanical theory of oars and rowing. We may mention as an example such as the following:—

Holding water is the method adopted for checking more or less suddenly the progress of the boat by dipping the oars and sculls simultaneously into the water on both sides. If there are several oars, the boat may be instantly stopped in this manner, and if one side continues to pull while the other side holds water, the boat will turn quickly round towards the side not rowing.

Backing is effected by pushing the blade of the oar through the water in the direction opposite to that of rowing, and feathering the oar as it leaves the water, by which means the boat is made to move backwards.

Paddling consists of rowing with half power and quickness, that is to say, with a rate of about twenty-five strokes in a minute, whereas for "rowing hard" the number of strokes is about forty-two, and for a "spurt" fifty or fifty-five per minute.

The best length of stroke is that which all the rowers can conveniently maintain without reaching so far forwards as to be unsteady in the drop, or swinging so far back as to bear too hard upon the oar, and occasion a downward pull upon the boat.

The best style of stroke is that which does not cause the boat to jerk; the stroke ought to begin with a neat and delicate drop of the oar in the water without any splash; the rower catching hold of the water at once, and gradually increasing his power as the resistance is removed.

Keeping time consists of the feathering of the oars, and of their recovery, executed by the whole crew exactly at the same moment.

Keeping stroke consists of the exact imitation of the stroke oar by those behind him, both as to the depth and the length of water taken. This simultaneous action is of great importance to the velocity of the boat; a crew pulling well and accurately together being always able to beat a crew even of better men whose action, owing to various styles of rowing, is not simultaneous.

To Clean Jet.—Use the softest brush that can be procured, to remove the dust in the most gentle manner from the carving, and then touch the jet with a little good oil on a bit of cotton wool, and polish with wash-leather. The process requires the greatest care, as the carving makes the jet so brittle.

Home-made Bread and Baker's Bread.—It is a well-known fact that baker's bread is very frequently inferior, both in agreeableness and taste, to home-made bread. This difference, however, does not originate so much in the adulteration of the flour or the bread, as in the different method of fermentation had recourse to in each case. The nutritive properties of each kind of bread are nearly equal, but although the baker's bread may often be whiter than that which is home-made, it ought to be borne in mind that the whitest bread and the best cooking flour are by no means the most nutritious.

The Best Way to make Home-made Bread.—It may seem almost superfluous in these days to offer a receipt for making bread, but some of our readers may reside in the country, at a distance from a good baker, and they may not be unwilling to try a method of making bread, which we can confidently recommend from many years' personal experience of its excellence. It would appear, also, that the idea of the superiority of home-made

bread over that of ordinary bakers, as to its purity and wholesomeness, is not altogether exploded. The first process in bread-making being the preparation of the yeast, we shall begin our description with

How to make Yeast.—Put two ounces of hops into nine pints of cold water, and boil half an hour; strain it hot, and dissolve in the liquor two ounces of table salt and half a pound of moist sugar; when lukewarm put a pound of flour into a basin and pour on it the liquor by degrees, stirring it round till the liquor and the flour are evenly mixed; add half a pint of old yeast,—if there is not any left from a former brewing, brewer's yeast, well blanched, will do. If the weather be cold, set the pan with its contents near the stove for forty-eight hours. On the third day boil and mash three pounds of good potatoes, with their skins, and mix them with the liquor. On the fourth day stir the yeast thoroughly and strain it through a sieve into a two gallon bottle, cork and tie it down firmly, and keep it in a cool cellar. It should be shaken before being used. Half a pint of this should always be kept to add to a new brew.

A Quicker Way to make Yeast.—Boil an ounce of hops in two quarts of water for half an hour; when milk-warm, stir in a teacupful of flour and half a teacupful of sugar; then put in a little of the last yeast (brewer's yeast will do if this is not to be had). Two hours after put in three potatoes mashed small, and let it stand in a warm place by the fire about ten hours; then add a teacupful of salt. Stir well, and then put it away in a cool place. This is a very good receipt, and takes only one day to make.

To set Sponge for Bread.—Take a quart of yeast as already prepared, put it into a deep earthenware pan, add six large floury potatoes boiled, break them with their peels while hot into the pan with three pints of warm water and half a pint of flour; cover up closely, and set the pan near a fire for four hours to rise; measure into a bread trough seventeen pounds of best flour, make a hole in the centre of the flour with the hand, and when the yeast has risen and appears frothy, pour it gently through a colander into this hole, stirring at the same time enough of the flour to it to make it of the consistence of very thick batter; lay the trough before the fire and cover it closely, particularly in cold weather; let it remain undisturbed till early morning, work the whole of the flour into it in the usual way, wetting it if necessary with warm milk or with a little butter melted in warm water, and set the dough to rise in a warm place for four hours; the oven should then be ready for its reception, but not too hot; make the dough into loaves and bake it well; this will be ascertained by running into each loaf a dinner knife; if the knife comes out *clean* the bread is done enough.

If German yeast is preferred to the home-made, excellent bread may be made from it in the following manner:—Dissolve two ounces of good German yeast in two and a half pints of warm water, mix this well into three pounds of flour, and stand the pan, in which it is, in a very warm place; when it has risen add to it a pint and a half of warm water in which an ounce and a half of salt has been mixed, and six pounds of flour; knead the whole well together into dough, set it near the fire till it has risen, then make into loaves and bake.

Soda Bread.—To every pound of flour put half a teaspoonful each of finely powdered bicarbonate of soda, tartaric acid, white sugar, and salt; mix these very well in milk in the proportion of a breakfast cupful of milk to each pound of flour. Make the dough rather soft and work it as little as possible; each pound makes a loaf, which must be baked immediately on being moulded.

Soda Scones.—Four pounds of flour, two ounces of butter, one ounce of bicarbonate of soda, half an ounce of tartaric acid, and a quart of buttermilk. This is the best receipt for making soda scones.

Soda Cakes.—Mix a teaspoonful of

soda and one of tartaric acid with half a teaspoonful of salt, melt five ounces of butter in a large cupful of milk, add these ingredients to one pound of flour, half a pound of moist sugar, and two ounces of caraway seeds, work into a soft dough, if not wet enough add more milk, put into mince-pie pans to bake.

Soda Currant Cakes.—Rub into one pound of dry flour one drachm of bicarbonate of soda, one drachm of tartaric acid, and a little salt; add half a pound of butter, three quarters of a pound of moist sugar, half a pound of washed currants, thirty sweet and a few bitter almonds pounded, and make into a soft dough with milk; divide into little cakes, and bake in a quick oven.

To keep Bread Moist.—Place in the bread pan a board pierced with holes, and so supported as to be a couple of inches from the bottom of the pan; let there be an inch depth of water in the pan; put the bread on the board and cover the pan with the lid. The enclosed air will then prevent the bread from becoming too dry.

White Soup.—Take a good knuckle of veal, ½ lb. of lean ham, two large onions peeled but not sliced, four blades of mace, a dessert-spoonful of whole white pepper, half a teaspoonful of Cayenne, and five quarts of water; let all simmer till the meat is off the bones and the quantity reduced nearly one-half. Beat 3 oz. of sweet almonds and the hard-boiled yolks of five eggs in a mortar to a paste; strain the soup and add the eggs and almonds; just before going to table stir in a pint of good cream, and lay a nice piece of roll stuck with almonds in the tureen.

White Soup Maigre. (A French Recipe.)—Boil a cupful of vermicelli, with a little mace and some salt, in a quart of water, till the vermicelli is very soft; whisk up the yolks of three eggs in the soup tureen; pour the vermicelli and water on the eggs, and mix them all well together.

Sorrel Soup, or Soup à la Bonne Femme.—Slice an onion in thin slices, put it into a stew-pan with a quarter of a pound of butter; let it stew till nearly soft, but *not* brown; mince up a lettuce, three handfuls of sorrel, and a little chervil; add these to the onion, with a little pepper, salt, and nutmeg; stir till the vegetables are nearly cooked; then pour in a quart of good white stock and a tablespoonful of powdered white sugar; when it has boiled up, lay it aside to cool; carefully skim off all fat, and when about to serve pour it boiling on three yolks of eggs well beaten with a quarter of a pint of good milk; serve with sippets of lightly toasted bread.

Horseradish Sauce.—Grate as much horseradish as will fill a breakfast cup, mix with it *two* teaspoonfuls of powdered white sugar, and one each of salt and pepper, a dessert-spoonful of made mustard, and enough vinegar to make the whole as thick as rich cream; a small cupful of cream is also a great improvement. To use with roast beef the sauce is heated by being placed in a jar in the oven till warm, but it must not *boil*—and it is very good cold, to eat with any cold meat. Double this quantity may be made at a time; it will keep for some weeks if bottled.

The Game of Cricket.—This is one of our most popular games. It is in itself highly interesting; it requires such personal activity as most conduces to physical development; the exertions it demands are made under circumstances most favourable to health and cheerfulness; and it calls into energetic action perseverance, self-control, rapidity and accuracy of observation, and other qualities of mind of great value in the most important and serious affairs of human life.

It is unnecessary to occupy our too limited space by an enumeration of the implements or materials requisite to the game. These are well known, and can be readily obtained. We shall, therefore, furnish a brief description of the game itself, which is played either as the "single wicket" or "double wicket" game.

In double wicket there are two sides of eleven players each. Having tossed for sides, one of the two parties has the first innings, and two of the

number defend the wickets with a bat each, the others remaining disengaged. The opposite party, or side, are now occupied in "fielding;" by them the attack is carried on, their design being to "take the wickets" of the strikers by bowling at either of them four balls in succession from the "bowling-crease" of the opposite wickets. The striker is "out" if the ball bowls off either of the "trails," or bowls a stump out of the ground, and in certain other circumstances, laid down in the laws of the game. He is then replaced by another of his own side, till the whole party, or side, are in like manner "put out." It is the business of the striker to strike with his bat the ball as it bowls up to him, and if, in doing this, he drives the ball to a considerable distance, he runs to the opposite "popping crease," and back again, making the run to and fro once or twice, or as often as possible before the ball, which he struck away, is returned. For each of such runs a score of one is made, and the side which has the greatest score wins the game.

THE LAWS OF DOUBLE WICKET, as revised by the Marylebone Club, the best authority on the subject, are those universally adopted in Great Britain. They refer to a number of particulars more or less important, such as the weight and size of the ball, the dimensions of the bat, the number and position of the stumps, &c. They likewise determine the manner in which the bowler shall perform his duty; they fix the circumstances in which the striker is out; and they regulate the mode in which the fieldsmen, wicket-keepers, umpires, and players, shall perform their part in the contest.

IN SINGLE WICKET, the stumps being driven into the ground and the popping crease marked of, a bowling-stump is fixed at twenty-two yards from the wicket, and a bowling-crease marked at the proper distance, at which the bowler must deliver his ball. The game is defended by the batsman or striker, who stands at the popping-crease, and who is understood to be bound by the laws of single wicket if they differ from the usual regulations. The attack is carried on by the other side placed in the field according to their numbers. If there are less than five players on a side certain bounds are marked off, no wicket-keeper is required, and all the fielders may be in front of the line.

THE LAWS OF SINGLE WICKET are in many instances the same as those fixed for double wicket, with the addition of such as are rendered necessary by the nature and peculiarities of this game as compared with the other.

Mucilage, or Liquid Gum.—This may be procured from the stationers in bottles, price 1d. each. When required in large quantities it should be prepared at home. Put three ounces of gum-arabic (which is cheaper at the oil-shops) in an earthenware vessel containing half a pint of cold water. If the liquid is occasionally stirred, the gum in twenty-four hours will be dissolved and the mixture ready for use. Cork the bottle securely, or the mucilage will become mouldy.

To Waterproof Tweed Cloaks.—Dissolve half a pound of alum in two quarts of boiling water, and pour the solution into a vessel containing two gallons of cold spring water. Immerse the garment in this vessel, and let it remain twenty-four hours. Dissolve a quarter of a pound of sugar of lead in two quarts of boiling water, and pour the solution into another vessel containing two gallons of cold spring water. Take the garment from the first vessel, gently wring or press it, and immerse it in the second vessel. Let it remain six hours, gently wring it, and hang it in the shade to dry. This receipt has been tried, and found to answer admirably.

To Clean Wash-leather Gloves.—Remove the grease spots by rubbing with magnesia or cream of tartar, prepare a lather of lukewarm water and white soap; wash the gloves in it, wring them, and squeeze them through a fresh lather. Rinse first in lukewarm water, then in cold, and stretch them (on wooden hands, if possible) to dry in the sun or before a fire.

Summer.

What is't the cuckoo cries all day
Through the wide woods of Blondel Chase?
Is it some word of antique charm
Now meaningless to all our race
Save to some Brahmin, silent, sage,
Who glides with wide-oped eyes, and dreams
Dread stories of earth's earliest age,
Among the ghauts by Indian streams?

Or does the cuckoo but repeat
The name of some grief-wildered maid
Lost in the woods, and search for her
And call her name in every glade?
No! But when earth was young, and ere
Babel distractions severed men,
In our sweet primal tongue "cuckoo"
Meant "Summer has come back again."

So round the world this herald flies,
His happy tale proclaiming yet;
He wakes the flowers, *they* know the word
Which *he* remembers,—*we* forget.
And now imperial Summer reigns,
To her its grace the lily shows,
The mignonnette sighs its sweetest breath,
And all the world's beauty sinks into the rose.

In this sunny noon I stand by the stile
That leads to the misty meadows, and hear
From out of the hazy sunshine come
The murmuring gossip of haymakers near.
The fragrant hay lies in heavy swathes,
The loaded waggon rocks in the lane,
And the low love-song of the blackbird tells
That high summer-tide is here again.

D. Murray Smith.

The Month of June.

"After her came jolly June, arrayed
All in green leaves as he a player were,
Yet in his time he wrought as well as played,
That by his plough irons mote well appear."—*Spenser.*

In our variable English climate June is perhaps the pleasantest month in the year; the days are at their greatest length, and the temperature is warm, without being too hot for comfort. The trees are in their full beauty of foliage in "the leafy month of June." What can be more beautiful than an English landscape on a sunny day at this time? The cattle standing in the stream whisking away the flies with their tails, or lying in the shade of the trees chewing the cud, are the very picture of lazy enjoyment. The air is full of the sounds of life; the merry laughter of the haymakers, as they turn over the fragrant new-mown grass, or toss the sweet hay into the waggons to be carried to the stackyard; the bleating of the lambs separated from their mothers, who are being washed or shorn, and their joyous cries of recognition as their much-altered parent is restored to them; all testify that June is a busy month with the farmer.

The rose, the queen of flowers, (the favourite theme of poets, from Anacreon down to the Ayrshire ploughman, who sings,—

"My love is like the red, red rose,
That's newly sprung in June,")

is the pride of the garden. The perfection to which cultivation has brought this lovely flower, the infinite variety of its colours, size, and perfume, are truly wonderful; especially when we look at the wild dog-rose, the original stock of all the species which have now so far outstripped their parent.

June is the month of roses, and this flower being the emblem of love and beauty, was perhaps the reason why the Romans considered June the most auspicious month in which to be married. There are many old superstitions connected with this subject common all over Europe.

June is the second month in the year having only thirty days. It was called Mow-month by the Saxons.

Cook's Calendar for June.

Fish in Season.—Turbot, salmon, sturgeon, haddock, herrings, gurnards, soles, plaice, flounders, smelts, carp, eels, dabs, dory, mackerel, mullet, perch, pike, skate, trout, whiting, whitebait, lobsters, crabs, prawns, crayfish, and shrimps.

Meat in Season.—Beef, veal, mutton, lamb, pork, buck venison.

Poultry and Game in Season.—Chickens, ducklings, green geese, turkey poults, fowls, rabbits, leverets, pigeons, plover, wheatears, wild duck, rooks.

Vegetables in Season.—Asparagus, artichokes, beans, cabbage, cauliflowers, spinach, turnips, peas, radishes, new potatoes, lettuce, and salads of all sorts, cucumbers, endive, French beans, onions, vegetable marrow, and herbs of all kinds.

Fruit in Season.—Cherries, currants, gooseberries, strawberries, melons, early apples, and summer pears. Grapes, apricots, and peaches forced in a hothouse.

Gardener's Calendar for June.

"Calm weather in June sets corn in tune."

In June, the careful gardener will be rewarded for all his previous toil and forethought, by plentiful crops of vegetables. Peas, beans, cauliflowers, spinach, early potatoes, come rapidly to perfection, and as they are used up, the ground which they occupied, must be utilized and got ready to receive crops for autumn and winter use. For this purpose begin to sow beans, broccoli, Brussels sprouts, cabbages, &c.; plant out vegetable marrows, pumpkins, capsicums, and tomatoes in good rich warm spots; also cabbages, savoy, cauliflowers, and endive in any spare place. Trench up celery and potatoes; sow salad, early turnips, spinach, and radish seed. The fruit-trees will be infested with green fly, and must be watered with tobacco-water, or some of the compounds recommended for the purpose. Cover fruit-trees with nets to defend them from birds. Clear gooseberry and currant bushes of insects by watering with lime water, or spreading lime powdered, or soot, on the ground around each bush. Thin out vines, removing all superfluous wood; attend to the strawberry beds, and lay straw under the fruit, that it may not be injured by rain; prepare raspberry beds for next season, and strawberry plants for forcing. The watering of both vegetables and flowers must be carefully attended to. The roses are in their greatest beauty, and must be constantly watched, and the insects removed, by watering or fumigation; pick off all decayed leaves and deformed buds. When the flowers have opened and bloomed one day, the decaying blossom ought to be cut away, cutting back to a strong good bud, from which a new stem and new flowers will come. By this process the plants will be kept blooming almost perpetually. Dry and lay aside bulbs, anemone and ranunculus roots: plant out pinks, carnations, dahlias, chrysanthemums, and large annuals; put stakes to hollyhocks and other plants requiring support; trim biennials and perennials, and see to the general neatness of lawns, beds, and gravel walks.

Farinaceous Substances as Food.—The most wholesome and nutritive of all vegetable substances are those called farinaceous, and among these, wheat occupies the highest place. Home-made bread made with leaven in the usual way, and a day or two old, is extremely digestible and nutritious; the baker's bread ought to be equally so, and no doubt it often is, but there is reason to suspect, that the flour or the bread, may contain substances which Nature never intended to be mingled with them. All new bread, which may be called unripe, is very difficult of digestion, and very unwholesome. Bread made with new flour is less digestible than that made of old flour, although it must be admitted it is more palatable. Puddings made of

flour are wholesome, when taken in moderation, but are less easy of digestion than bread. The same remark may be made as to batter puddings, Yorkshire pudding, macaroni, and vermicelli, and in general all dishes made of flour mixed up into paste, and either boiled in water or stewed in butter. People who are in great vigour may not experience any great inconvenience from them, but they are unsuited to those whose stomachs are weak, or those who are recovering from illness.

Barley is perfectly wholesome, and pearl barley, well boiled in water, forms a nutritive drink, and extremely well adapted to the use of the sick.

Oats, made into meal or groats, form a common article of diet, especially among the labouring classes in various countries. When well boiled, the oatmeal produces a thick mucilage, in a high degree nourishing, wholesome, and digestible. When poured into a plate, and of a good consistency, it is eaten with milk, and is well known in the northern part of Great Britain as porridge. This porridge is admirably adapted as food for young persons, and it can hardly fail to be an evidence of this, that by the advice of Sir James Clarke it was made no inconsiderable part of the daily food of her Majesty's children during their early years.

Rice.—It is unnecessary to affirm, that rice is extremely nutritive and wholesome, when we remember that it is the only food of many millions of the native inhabitants of India. It is, however, most digestible when eaten with some condiment, such as cinnamon or nutmeg.

Hints about Groceries.—

What has been already stated as to marketing is in a great measure applicable to the purchase of groceries. It is safest to deal with well-known and respectable tradesmen. The best articles are not only the most wholesome, but also the most economical. It is not always economical to purchase large quantities of groceries. Some things lose some of their best qualities by being too long kept. Tea, for instance, loses its flavour by being much and long exposed to the air, and this can hardly be avoided if a large quantity be laid in, and the consumption be at the same time small.

Loaf Sugar.—When loaf sugar is of good quality it has a fine white gloss, a close texture, and the taste is sweet without any peculiar flavour.

Moist Sugar, when good, is bright, and composed of crystallized particles. If the sugar be moist and dull-looking, it is of inferior quality.

Rice, as a general rule, ought not to be laid in in large quantities. The East India rice is small in the grain, and yellowish in colour, and some kinds of it are excellent. The Carolina rice, on the other hand, is large in the grain, and white in colour.

Dried fruits ought to be clean and dry, and yet fresh in appearance. When adhering together in lumps they are generally inferior in quality.

Candles, whether wax or composite, improve by keeping, when stored in a dry, cool place, and kept from the light.

Soap improves by keeping, becoming harder, and not rubbing down so fast as when soft and moist. It is an advantage to buy it wholesale rather than by retail.

Hints on Fruit as an Article of Food.—

There are times when a pound of ripe strawberries or grapes, are worth more as food, than double the amount of beef or mutton, or even of bread. In summer we do not require food that will create or increase animal heat; therefore fruit and vegetables, being lighter and less nutritious, will supply all our requirements; and it is during that season that the more acid fruits, such as currants, gooseberries, raspberries, strawberries, and grapes, are in their greatest perfection, and are therefore likely to exercise the most beneficial effects on the human system. The use of ripe fruit keeps the blood cool, and prevents feverishness. All fruit is not equally wholesome; stone fruit, such as cherries, plums, peaches, apricots, are, as a general rule, considered as more apt to pro-

duce derangement of the stomach, when eaten in large quantities, than the smaller fruits, or than ripe apples, pears, &c.

In hot climates fruit is invariably eaten at breakfast, and this, though contrary to *our* usual practice, is undoubtedly the best and safest time to eat it. An old French proverb, and one that experience has proved true, says of an apple that it is gold in the morning, silver at noon, but lead at night. Strawberries and gooseberries are considered to be the most wholesome of all our native fruits.

Arrowroot.—Arrowroot is obtained from the roots of *Maranta arundinacea*, a plant chiefly cultivated in the West India islands. The roots are about a foot long, white and jointed, and covered with paper-like scales. When a year old, they are dug up, peeled, and reduced to a milky pulp. The pulp is mixed with water, cleaned of fibres, and the starch allowed to settle at the bottom. Successive washings are employed for further purification. The substance is then placed in tin cases or barrels for exportation. About 400,000 lbs. of arrowroot are annually imported into the United Kingdom. It is an excellent article of diet for invalids and children, and is of easy digestion, but is only moderately nutritious. It is very frequently adulterated with sago meal and potato flour. Genuine arrowroot, when rubbed between the fingers, makes a slight crackling noise. The arrowroot produced on the farms and at the mission stations of Natal, and imported by Messrs. Robertson Cook and Co., is equal to the finest Bermuda, and is supplied at a moderate price. The few following receipts for preparing arrowroot may be safely recommended:—

Arrowroot Pudding. — Take one pint of new milk; in one-fourth of it while cold mix two large tablespoonfuls of arrowroot. Boil the remainder of the milk, and stir whilst boiling into the arrowroot. Beat up three eggs, sweeten to taste, mix well together, and bake in a slow oven.

Arrowroot Custard. — Take one pint of new milk, mix a large teaspoonful of arrowroot with a portion of the milk, cold. Beat two eggs, sweeten and flavour to taste, and pour the whole into the remainder of the milk while stirring it. Boil about three minutes, in the same way as boiled custard.

Blancmange. — One pint of new milk, four tablespoonfuls of arrowroot, one egg; mix like pudding. Boil three minutes, stirring it all the time, sweeten and flavour it with brandy or almond essence, and pour into shapes.

Snow Cakes.—One pound of arrowroot, half a pound of sifted white sugar, half a pound of butter melted, two eggs, essence of lemon or flavouring to taste; mix the ingredients gradually; beat well, and bake in a slow oven.

In biscuits, and as an addition to many articles of confectionery, as a substitute for butter and eggs, arrowroot is at once cheap, nutritious, and digestible. It is also used to great advantage in thickening infants' food, beef tea, soups, and gravies.

Stewing.—General Remarks.—The effect of stewing is similar to that of boiling. It deprives the meat of much of its best juices and most nourishing properties, leaving it less easy of digestion than meat which is boiled.

Stewed Rump of Beef.—Boil a rump of beef for eight or nine hours on a very slow fire, and with very little water, only as much as will cover the saucepan. Put in some parsley, a laurel leaf, a clove of garlic, two eschalots, a small bunch of thyme, four cloves, half a nutmeg, pepper and salt. When done, take off the gravy, let it cool, and take away the fat; then boil it up again, and pour over the beef when served.

Stewed Beefsteaks.—Season the steaks and lay them in a stew-pan. Put half a pint of water, a blade of mace, an anchovy, a small bunch of herbs, a piece of butter rolled in flour, a glass of white wine, and an onion. Cover close, and let it stew till the steaks are tender; then take them out, strew some flour

over them, fry them in fresh butter till they are of a nice brown, and pour off the fat. Strain the sauce they were stewed in, and pour it over them on the dish, serving with horseradish and pickles.

Stewed Veal.—Divide into portions part of a breast of veal and fry it of a nice brown in butter. Put into a stew-pan a quart of green peas, together with onions and parsley. When they are tender, add some veal gravy and put in the pieces of veal already fried, and stew the whole gently. Season with salt, pepper, cayenne, and a teaspoonful of powdered sugar.

Stewed Leg of Mutton.—Put it into the stew-pan with either broth or water, two or three carrots, a turnip, an onion, and a few black peppercorns. After coming to a boil, simmer for two hours and a half, take out the broth and vegetables, dredge the meat with flour, and put it again on the fire to brown, leaving off the cover. Pulp the vegetables through a sieve, and boil them up with the gravy, adding a tablespoonful of vinegar. Pour part of the sauce on the meat and send the rest to table in a tureen.

Stewed Shoulder of Mutton.—Hang it up for three or four days, salt if for two days, bone it, sprinkle it with pepper and bruised mace, lay some oysters on it, roll it up, and tie it. Stew gently, with very little water, for two hours, closely covered. Serve with gravy having oysters stewed in it, thickened with flour and butter. Remove the string from the mutton and pour some of the sauce over it.

Stewed Leg of Lamb.—Cover it in the stew-pan with mutton gravy, putting in a bunch of sweet herbs with some pepper, salt, and bruised mace; stew gently for three quarters of an hour. Pour out the liquor and cover the meat to keep it hot. Strain the gravy, and thicken it with flour and butter, flavour it with mushroom catsup and some lemon juice, and pour it over the lamb when dished.

Stewed Pigeons.—Make a seasoning of pepper, salt, cloves, mace, sweet herbs, and a piece of butter rolled in flour, and put it into them, closing the opening. Half roast them; then stew them in good gravy, a little white wine, whole pepper, mace, lemon, sweet herbs, and a small onion. Take them out when done, strain the liquor, skim it, thicken it with a piece of butter rolled in flour; then put in the pigeons with some pickled mushrooms, and stew them for five minutes. Pour the sauce over them in the dish.

Stewed Hare.—Cut a pound of lean bacon into cubic inches, blanch it for five minutes in boiling water, and drain and fry it in a stew-pan with an ounce of butter, till fried yellow; then cut the fore part of the hare into pieces an inch or more in size, and stew them for ten minutes; then sprinkle them with flour and stew for two minutes; add of red French wine and broth a pint each, boil five minutes, and strain through the colander; then put into the stew-pan, with some herbs, the bacon, a little salt and pepper, and simmer for twenty minutes. Afterwards add two dozen of button onions, fried in butter, and simmer again. A little before serving add a pottle of prepared mushrooms, cut up the pieces of hare, and serve.

Cucumbers, to Stew.—Slice an equal quantity of cucumbers and onions and fry them together in butter; strain them in a sieve, and put them into the saucepan with a gill of gravy, two spoonfuls of white wine, and a blade of mace. Stew five or six minutes, put in a piece of butter rolled in flour, salt, and cayenne pepper. Shake them well together till of a good thickness; dish and serve them up.

Mushrooms, to Stew.—Wipe large button mushrooms with a wet flannel, put them in a stew-pan with a little water, stew for a quarter of an hour; then put in salt, flour, and butter to make it as thick as cream; do not let them boil longer than five minutes, as they must look white. Serve with sippets round the dish. This makes a good side dish for supper or a corner dish for dinner.

Mushrooms, to Ragout.—Peel and cut the inside of some large mushrooms, then broil them on a gridiron. When the outside is brown, put them into the stew-pan with water to cover them. When stewed ten minutes, put in a spoonful of white wine, the same of browning, and a little vinegar. Thicken with butter and flour, give it a gentle boil, and serve with sippets round the dish.

Green Peas, to Stew.—Put into the stew-pan a quart of peas, a lettuce, and an onion sliced, butter, pepper, salt, but no more water than remains about the lettuce after washing. Stew two hours very gently. When to be served, beat up an egg and stir it into them, or a little flour and butter.

Celery, to Fry.—Cut off the roots and green tops of six or eight heads of celery; take off the outside stalks, pare the ends clean. Have ready half a pint of white wine, the yolks of three eggs beaten fine, salt, and nutmeg. Mix all together with flour into a batter, into which dip every head, and fry them in butter. When done, lay them in the dish and pour melted butter over them.

Onions, to Ragout.—Peel a pint of young onions; take four large ones, peel and cut them very small; put butter into a stew-pan. When melted, throw in the onions and fry them till brown; then dust in flour and shake them round till thick. Throw in salt, pepper, a quarter of a pint of good gravy, and a teaspoonful of mustard. Stir all together, pour it into the dish, and garnish with fried crumbs of bread.

An Excellent Salad.—Wash very carefully two good heads of lettuce, one of endive, a handful of small salad, and half a dozen of the very young onions, or one shalot, drain the water from them and slice them small, toss them about on a clean cloth to take off as much of the water as possible, but do not press them, as that would take off the crispness; lay them all in a salad-bowl or glass. Boil four eggs hard, take out the yolks, and cut the white in rings to garnish the salad; rub the yolks down with two teaspoonfuls of dry mustard, one of salt, and one of white and Cayenne pepper well mixed; add by degrees to this four tablespoonfuls of the best Lucca oil, and two of vinegar; a dessert-spoonful of Worcester sauce is an improvement. Mix these ingredients very well together, and pour the whole over the salad; stir it up till the dressing has saturated the salad, put radishes round the edge, and garnish with the white of eggs.

Lobster Salad.—Prepare a salad as above, take the meat out of the tail of one large or two small lobsters, cut it in two lengthways, and take out the sandbag. Then cut each piece in two, pick the meat out of the claws, and lay it in handsome pieces on the salad; also all the coral and spawn. Many prefer mixing the salad dressing with the lobster cut in small pieces, but the way given here makes a prettier-looking dish, and is quite as good.

Light Drinks for Summer.—Claret Cup.—A bottle of light claret, one of soda water, a wineglassful of powdered sugar, a large glass of sherry, or small one of euraçoa, the rind of a lemon cut very thin, a few slices of cucumber with the rind on, a sprig of borage or mint, mix all well together, and ice it by putting in six or eight lumps of clear ice the size of an egg.

King Cup.—Squeeze the juice of a lemon into a china bowl, add the rind cut very thin, an ounce of white sugar, a good-sized piece of bruised ginger, pour over them a pint and a half of boiling water, let it stand till cold, then strain, add two glasses of sherry, and ice it with lumps of clear ice.

Cider Cup.—One quart of good cider, two bottles of soda water, two glasses of sherry, a glass of brandy, and one of euraçoa, the rind of half a lemon pared thin, a wineglassful of powdered sugar, a little nutmeg, and a sprig of borage or mint; ice it well.

Limonade au Lait.—The juice of seven lemons, half a pint of sherry, three quarters of a pound of white

sugar, and a quart of boiling water; mix, and when cold add a pint of boiling milk; let it stand for some hours, then strain clear through a jelly-bag, and ice. This is always better if made the day before it is required.

Orangeade.—Squeeze the juice of seven good oranges, peel three of them, and pour boiling water over the peel, cover it close till cold, boil water and sugar together to a thin syrup, skim carefully; when all are cold, mix the juice, the infusion, and the syrup well together, with as much more water as will make a rich drink, strain through a jelly-bag, add a large glass of pale brandy, and ice it well with lumps of clear ice.

Ginger Beer.—To two pounds of white sugar, two ounces of best Jamaica ginger, well bruised, two ounces of cream of tartar, and the rind of two lemons, add two gallons of boiling water; stir all together till they become lukewarm, toast a slice of bread, pour on it two tablespoonfuls of good fresh yeast, and place it to float on the top of the mixture; cover the whole up for twenty-four hours, then strain and bottle it, taking care not to fill the bottles; cork and wire it securely. This quantity will make three dozen bottles, and will be ready for use in three or four days.

Raspberry Vinegar.—Break up two quarts of ripe raspberries in a basin, pour over them one quart of French vinegar, then let them stand for ten days, occasionally stirring them up; clarify two pounds of white sugar with a little water, and the whites of four eggs, strain the juice of the raspberries, add it to the sugar, and boil until it looks clear, but not too long, as that would spoil the colour; when cold, bottle and keep it in a cool place.

To Bottle Fruit for Winter Use.—Perhaps the best fruit to bottle for winter tarts, &c., are green gooseberries. The process is easily managed, and they keep remarkably well.

Fill to the top as many wide-mouthed bottles as you wish to lay by, with good green gooseberries, having the tops and tails removed; place them upright and uncorked in a large pot of cold water, placing hay round the bottles, to prevent them from being upset, or knocked against each other by the motion of the water in boiling; let them boil for ten minutes, then fill up the bottles to the top and cork tightly: the object is to exclude the air as much as possible, and the heat will cause them to shrink, so that one bottle will have to be used to fill up the deficiencies of the others; seal down the bottles, and keep in a cool dry place. Currants, raspberries, cherries, and plums can be bottled in this way; and for cooking purposes, answer as well as fresh fruit. It is best to do them before they are thoroughly ripe.

Gooseberry Fool.—Put two pounds of unripe gooseberries into a stone jar, with half a pint of water and half a pound of sugar; place the jar in a pan of boiling water over the fire, and stew till the fruit is reduced to pulp. Then strain it through a sieve, and stir into the pulp while it is warm another half-pound of sugar, and a pint of cream and a pint of milk; or use milk only and a little grated nutmeg. It must be served cold. It is an excellent dish for children. Rhubarb cooked in the same manner, is likewise very nice as well as wholesome.

Rhubarb Preserve.—Peel and cut into pieces about two inches long, six pounds of rhubarb. Put it into a stone jar, with eight pounds of preserving sugar, the rind of a lemon cut thin, and shred into little bits, a quarter of a pound of ginger, and a few cloves; set the jar in a pan of boiling water, or stand it in the oven. When the rhubarb is quite tender, strain off the juice; put the juice into a preserving pan, and boil quickly for half an hour; pour it over the rhubarb, and put the whole into pots or shapes; if well made it will be clear, and stiff enough to turn out, and covered in pots, it will keep as well as any other preserves.

To make British Champagne.—To every five pounds of rhubarb, when sliced and bruised, put

one gallon of cold spring water; let it stand three days, stirring two or three times every day; then press and strain it through a sieve, and to every gallon of liquor, put three pounds and a half of loaf sugar; stir it well, and when melted barrel it. When it has done working bung it up close, first suspending a muslin bag with isinglass from the bung into the barrel. To fifteen gallons of liquor put two ounces of isinglass. In six months bottle it and wire the bottles: let them stand up for the first month, then lay four or five down lengthways for a week, and if none burst, all may be laid down. Should a large quantity be made, it must remain longer in cask. It may be coloured pink by putting in a quart of raspberry juice. It will keep for many years.

Gooseberry Wine.—Pick and bruise the gooseberries, and to every pound, put a quart of cold spring water, and let it stand three days, stirring it twice or thrice a day. Add to every gallon of juice three pounds of loaf sugar; fill the barrel, and when it is done working, add to every twenty quarts of liquor, one quart of brandy and a little isinglass. The gooseberries must be picked when they are just changing colour. The liquor ought to stand in the barrel six months. Taste it occasionally, and bottle when the sweetness has gone off.

A Few Words on Ice.—The doctrines of latent heat unfold to us various processes in the economy of nature, which are in the highest degree interesting. All solids in the act of passing into a liquid condition, and all fluids passing into a state of vapour, absorb heat from the objects around them. Hence the great chillness felt in a thaw, owing to the ice and snow, in becoming liquid, absorbing the latent heat of all bodies, as well as of the air itself. Refrigerating or ice-producing mixtures are illustrations of this principle of nature. Salts of various kinds suddenly liquefied, abstract the heat from the substances in contact with them, and in some cases reduce them to a state of intense cold. Herr Rudorff has discovered that the sulphocyanide of ammonium, added to water, will reduce its temperature to 18 degrees below zero.

Ice Machines.—Every family should possess either a refrigerator, or ice-producing machine, which can be procured at a moderate price. The two best are M. Carré and Co.'s of France, and Mr. Siebe's of Lambeth. M. Carré's machine is thus described:—A bottle half filled with cold water is subjected to an air-pump in the machine. As the vacuum is produced the water is vaporized. The air and steam drawn off pass through a cylinder containing sulphuric acid, which absorbs the watery particles. The outside of the bottle becomes covered with dew, the temperature of the water falls, and immediately after it loses its transparency, and ice is obtained. The machine constructed by Mr. Siebe is said to be so powerful that it is capable of producing ice even under the heat of a tropical sun. The peculiarity of this machine consists in the evaporation of ether, or any similar volatile fluid, and again recovering and condensing the ether to a fluid, so that it may be used afresh. A naval officer of our acquaintance informs us that at a dinner recently given by the Resident at the Seychelle Islands, iced water was produced by one of these machines, which served to cool the wines at table as effectually as natural ice would have done.

To Preserve Ice.—When ice is to be removed from one place to another, it should be packed in sawdust. A simple mode of preserving ice is to place it in a bag of thick woollen cloth, enclosed in a larger bag. Pack the enclosed bag with feathers all round to the depth of two or three inches, and the ice will not melt.

Ice in Medicine.—In hysterical affections, ice applied to the head will be found an excellent remedy, and if applied to the back of the neck or on the wrist, it will arrest bleeding at the nose. Care ought to be taken in hot weather not to drink iced water too

freely, for if taken to excess, it may cause inflammation of the stomach, and other functional disorders. Only a single tumblerful should be taken at a time, and at least an hour suffered to elapse before repeating the draught.

Atmospheric Air. — Man may live without food for several days, but he cannot exist even for a few moments without breathing atmospheric air. This sufficiently proves its supreme importance, not merely to health, but to life itself.

Breathing supplies the blood with that vital power, by which it maintains the energies of the body, and repairs the waste to which it is continually subject. This effect is produced by the oxygen, which forms one of the constituents of the atmosphere; and as this vital element is found in the greatest quantity in fresh air, it is plain that the fresher the air the greater is its salutary power.

Atmospheric Air, by being frequently breathed, is deprived of its oxygen, and in an apartment to which the external air has no access, neither life nor flame can be maintained. This may be illustrated on a small scale by placing a lighted taper or a small animal, which breathes with lungs, under a bell glass. The taper goes out as soon as the oxygen under the glass is consumed, or the animal dies. Those whose work confines them for many successive hours to close and ill-ventilated apartments, frequently exhibit a pale and delicate appearance, as compared with the florid and healthful aspect of those whose labours are carried on in the open air. It is certain that the former have poorer blood than the latter, and, as a general rule, are weaker and more liable to chronic and acute diseases, as well as less able to struggle against them. The pallor and weakness of the one class, are caused by their habitually breathing in an atmosphere deprived in a great measure of its oxygen; while the healthful and vigorous aspect of the other class, is produced by their enjoying at all times an ample supply of air, from which its vital constituents have not been absorbed.

Ventilation is of pre-eminent importance. Houses, factories, school-rooms, workshops, should be so constructed as to admit a continually renewed supply of fresh air. All apartments where large numbers of persons are assembled, ought to be spacious and lofty. Abundance of pure air will not only contribute to the health of those occupying such apartments, but will conduce in no small degree to their cheerfulness, and their ability to perform their allotted work. The importance of ventilation is attested by the fact, that infants and young children are much injured by being confined within doors, and that the mortality among them in large towns and cities, where the atmosphere is deteriorated, is much greater than in the country.

A constant supply of fresh air is extremely valuable in sickness, whatever the nature of the malady may be, whether of an acute or a chronic character. In all fevers, it is of the very first importance, and in protracted maladies, it will be found a powerful auxiliary to the other means used for the patient's restoration; indeed, without fresh air, the greatest skill and the most tender care will have but a partial effect. According to a writer in the *Field*, the following contrivance will effectively introduce fresh air into apartments, without causing an objectionable draught or lateral current:—Take a narrow board, three or four inches in width, and as long as the breadth of the window, place it on edge under the lower sash. A space is thus provided between the window-sashes, through which a current of air passes into the room upward.

How best to keep your House Cool in Summer.— We wear light-coloured clothes in summer weather to keep out the heat of the air, and we ought to wear clothes of the same colour in winter to keep in the heat of our bodies; for clothes of a white colour, quite as effectually keep the heat of our bodies from passing out and being lost in the colder atmosphere of a winter day, as they do the heat

of the sun from scorching us in summer. The walls of our houses serve the same use as the clothes we wear,—they keep the heat with which we temper the severity of winter weather from passing out, and they also serve to debar the entrance of the great heats of summer. The best way to preserve a cool temperature in your house in summer, is to throw open the windows as soon as you get up, and thus let your house be filled with the cold morning air. Keep the windows open till the heat of the day begins to be felt, then close them up tightly, and shut out the warm air. A house in which this plan is adopted will keep cool for many hours, during which the heat outside may be unbearable. Let it be understood, that the closing of the windows must not be allowed to interfere with the ordinary arrangements for the ventilation of the dwelling.

The Law of Marriage.—In *England* marriage is held as a civil contract, but it cannot be set aside like other contracts, though either party has procured it by fraudulent representations. Nor can it be rescinded by either party or both at pleasure. Marriage in England may be contracted with or without a religious ceremony. Without a religious ceremony it may take place in the office of the superintendent registrar, and in presence of witnesses, the parties exchanging declarations that they take each other for man and wife. Marriage with a religious ceremony may be solemnized in the Established Church or a Dissenting chapel duly licensed. There must previously be publication of banns three succeeding Sundays, or a licence obtained from the registrar, and the ceremony must take place during canonical hours, *i. e.*, between eight a.m. and twelve noon. When the marriage is solemnized in a Dissenting chapel, the superintendent registrar of the district must be present as one of the witnesses. There is no fixed age at which parties are not allowed to marry, provided the male is above fourteen years and the female above twelve.

In Scotland marriages are divided into regular and irregular. *Regular* marriages are those celebrated by a clergyman after due proclamation of banns in the parish churches of the parties. The marriage may be solemnized privately and at any hour.

The *irregular* marriages are of three kinds:—1. Marriage by mutual consent, expressed in words in presence of witnesses. 2. A promise of marriage *copula subsequente* is a ground for raising an action of declaration. 3. Cohabitation of the parties as man and wife.

The marriage law of Ireland agrees with that of England, except in so far as it is provided that a Roman Catholic priest cannot legally celebrate a marriage between parties who are both Protestants, or one of whom is a Protestant.

The Law of making a Will.—No seal is necessary to the validity of a will; it must be in writing, signed at the end by the testator or on his behalf, and in the presence of two or more witnesses, who need not be of full age. The testator must have attained majority. An estate can only be tied up twenty-one years after the death of a testator. A person may dispose by will of landed or real property as "he may hereafter possess." A will may be set aside if procured through fraud, or by imposing on the testator's weakness of mind. Wills made in England will not be invalidated by reason of the testator dying abroad. Any part of a will may be revoked by a codicil. It is not requisite to the validity of a will that it should assume any particular form; it is sufficient that it conveys the intention of the testator. All interlineations or alterations in a will or codicil must be initialled by the testator. Soldiers in military service may dispose of their goods by wills declared verbally. The executor appointed by a will must bury the deceased in a manner suitable to his estate; personal charges are allowed previously to other debts. He must then *prove* the will, and employ a valuer to make an inventory of the deceased's goods. An executor must have attained

the age of twenty-one; a married woman cannot act as an executrix without her husband's consent. Legacies bequeathed to widows in satisfaction of dower are entitled to priority over others. Legacies under £50 may be recovered in the county courts, unless the validity of the bequest is disputed. Illegitimate children may be objects of a bequest by any description which will identify them. Probates of wills and letters of administration to the effects of deceased persons are granted in the Court of Probate at Westminster, in connection with which there is a principal registry of wills at Doctors' Commons, and at forty district registries throughout England and Wales.

Hints on Bee-keeping.—Following up our previous observations (see page 82) regarding the management of these wonderful insects, we now lay before our readers a few additional and useful hints.

The Position of the Hives.—For an apiary, or even a single hive of bees, the best position is a sheltered place on a low level, instead of an elevated and exposed situation, and as free as possible from damp, noxious smells, and disturbing sounds. A plot of well-kept grass, or a space covered with dry gravel, closed in with laurel and laurustinus, is frequently very desirable. There seems to be no definite rule as to the best position for the hive as regards the points of the compass; the bees have been found to thrive whether their abode fronts the south, the north, or any intermediate point. On this subject so much depends on the locality, the climate, and various other considerations, that it is difficult, or rather impossible, to prescribe any rule of universal application.

Pasturage for Bees.—Districts of country where corn is extensively cultivated, are less favourable to bees than those in which commons abounding with wild flowers, and moors covered with heath prevail, and where clover and tares, peas and beans, and similar plants, are largely grown. The blossoms of fruit-trees of all kinds, and the flowers of the broom, the furze, and the bramble, all afford the bee great advantages for the collection of honey and farina. The planting, too, in the neighbourhood of the hives of the crocus, the blue hepatica, the black hellebore, and mignonette, is also found to be highly favourable.

Supply of Water.—When the season is dry, and during the period of breeding, water is necessary to the bees, in order not only to the secretion of wax, but the due preparation of honey and farina. If there be no natural supply of the needful element within easy reach of the little architects, a shallow vessel must be placed near them, which may be frequently filled to the brim. As a precaution against the danger of drowning some of the bees, a thin piece of wood, perforated with holes, may be placed so as to float on the surface, covering every part of it. The holes will be so many wells from which the bees can draw their supplies without the danger of their falling into the water.

Sunshine and Shadow.—Too much heat is always injurious to bees; they ought not to be left exposed to the sun in sultry weather. It renders the insects extremely irritable, and exposes the combs to the danger of being more or less softened, and even melted. It is very important, therefore, to protect the hive by sheltering it from the direct rays of the sun. A screen adapted to the purpose is very suitable, or a mat, which may be thrown over the hive. In our opinion the screen is to be preferred, as causing a grateful shade, and at the same time permitting a better ventilation. On this subject an excellent writer remarks, that bees "delight best in thick forests, because there they find a uniform temperature and a propitious shade;" and he adds, "It is a mistake to suppose that bees exposed to the sun produce the earliest and strongest swarms; I have often experienced the reverse. Bees like the shade when working, and the sun only when in the fields."

Enemies of the Bees.—Domestic fowls are destroyers of bees, and also some birds, from whose attacks as they range the fields at a distance from the hive they cannot be protected. Among these is the titmouse, or blue tomtit, which devours the bees, and feeds his young with them; and in winter is said to endeavour to force his way into the hive itself. Mice are often very troublesome, and even rats sometimes make their way into the hive. Slugs and snails often occasion much trouble; and, especially in warm summer evenings, the attacks of wasps and hornets are a great annoyance to the bees. In all these cases care and vigilance can do much. Wasps' nests ought to be destroyed wherever met with; insects of all kinds, such as earwigs, woodlice, ants, &c., should be cleared away. In a word, the hives and stands for them ought to be kept as clean and neat as possible.

Bee-Robbers.—In spring and autumn the hive is sometimes exposed to an assault from strange bees for the nefarious purpose of robbery. These predatory attacks are often much more serious than the assaults of wasps. If two or three strange bees gain admission to the hive, they continue to return from time to time, bringing with them some auxiliary force; and sometimes they assemble in vast numbers at the entrance of the beleaguered citadel. In these "raids" the robbers often exhibit considerable foresight and cunning, making their attacks late at night or early in the morning. Various expedients may be adopted to counteract or defeat the object of these marauders. Smoke puffed into the hives when a conflict is going on is often effectual; some honey placed on the top of the hive diverts the attention of the belligerents from their warfare; the removal of the plundered hive to a distance, or even a change of place in the same apiary, may be an effectual cure. An expedient of much importance ought by all means to be adopted and without delay, that of narrowing the entrance to the assaulted hive, a plan which at the outset enables the besieged garrison with comparative ease to repel the invader.

Food for Bees.—It must be sufficiently obvious that no artificial food can be so acceptable or suitable to the bee as pure honey,—the kind of nutriment which the instinct of the creature itself induces it to provide; refuse honey may therefore, in preference to any other kind of food, be given to the bees whenever it is really required; but in many instances artificial food must be supplied. In spring it is recommended by competent judges that even strong hives be fed, inasmuch as they are stimulated by the increased temperature which the feeding occasions; but that there ought to be no feeding—unless there exists an unavoidable necessity for it—till the hive exhibits some degree of animation; for the bees often are tempted to go forth prematurely in quest of flowers, and numbers in this way perish, being unable to return home. As already observed, honey furnishes the best because the most natural aliment, and it may very properly be rendered more liquid by a slight admixture of water; but various substitutes for honey have been resorted to, and by no means unsuccessfully. One excellent writer on the subject recommends "good sound ale sweetened with sugar and honey, and boiled for a minute or two;" the usual proportion being "a pint to a pound of refined sugar, adding a fourth part of pure honey, which imparts a flavour most agreeable to the bees. A tablespoonful of rum," it is added, "greatly improves the compound." In the feeding-troughs or other vessels employed for the purpose, lumps of refined sugar saturated with water suit very well; but according to the authority already quoted no saccharine preparation is so well adapted as that in which the sugar has been boiled at the temperature at which the tendency to crystallize is obviated. Two pounds of loaf sugar may be boiled up to 360 degrees of heat. Twenty minutes' boiling will be sufficient, when the syrup will be quite brittle on cooling, and of a pale

yellow. A little vinegar mixed with the syrup seems to render it more agreeable to the bees. The syrup, when boiled, can be poured out on a dish or slab previously rubbed with oil or butter, and when cold and sufficiently stiffened it ought to be cut into pieces, which can be readily introduced into the hive. The preparation made by confectioners, and known as barley sugar, which is similar to the preparation just described, is likewise very acceptable to the bees, and affords an excellent means of supplying the wants of an impoverished hive.

In the hints on the subject of the honey-bee we have now given we have necessarily refrained from very minute details. The shape, the structure, the size, and other considerations relating to the hives, and the treatment of bees at the various seasons of the year, involve a variety and number of topics, and demand much elaborate and minute description, which neither our plan nor our space will admit of. The observations we have made will be sufficient to point out the great interest attached to the natural history, the habits, and the instincts of the honey-bee. Numerous excellent works have been written on the subject, to which we refer our intelligent readers; such as "The Bee-keeper's Guide," by Mr. Payne; "The Honey-bee," by Dr. Bevan; "The Beekeeper's Manual," by Mr. Taylor; and "The Shilling Bee-Book," by Mr. Golding; all of which furnish an ample store of sound theory and practice, founded on careful observation and lengthened experience.

Embroidery.—Under the name of embroidery may be classed three kinds of needlework decoration, viz.—

English embroidery, with cotton on a muslin or cambric ground.

Tapestry work, or embroidery with coloured wools on canvas.

Silk embroidery, with coloured silks on a silk, satin, or velvet ground.

For the present we shall deal only with the first of these.

English embroidery, or Broderie Anglaise, is the name given by the French to that kind of muslin work which is chiefly done by the cottage girls in Scotland and Ireland. The persons who employ these girls are called "Sewed Muslin Manufacturers," and they are to be found in Glasgow and its neighbourhood. Two or three times a year they send agents into those districts where sewing schools have been established, with bales of unbleached or green muslin (as it is called) with suitable patterns for babies' robes, ladies' collars, cuffs, handkerchiefs, trimmings, insertions, edgings, &c., stamped on each piece; they also supply the cotton for working the hoops on which the work is stretched, and the bone piercers or stilettos necessary.

The schoolmistress has as much of these materials as she considers her pupils will be able to use up, and she oversees the proper execution of the work, which is very inadequately paid, when we consider the time it takes to accomplish. These agents also collect the finished work, carefully examining each piece for defects, and a considerable deduction is often made from the stipulated price.

This embroidery is very much used for trimmings of various sorts, and is so simple that any person can teach herself how to begin it. Muslin patterns, ready stamped, can be had at any trimming-shop, and the only other things necessary are some of the common embroidery cotton, of a fineness suited to the texture of the muslin pattern, a piece of the oilcloth called "toile cirée," a bone stiletto, and a pair of scissors.

The most convenient way of working is with the pattern stretched over the lesser of two small ash hoops, which are covered with calico or silk to make them fit tight one over the other; the muslin is stretched between them, but this requires some practice to be able to use them with comfort.

To begin a piece of edging, first tack the pattern smoothly and evenly across the toile cirée, then with a needle threaded with embroidery cotton, trace carefully the pattern; when the portion

tacked is traced out, cut the leaves if large, pierce them if small, turn in all raw edges with the needle, and sew over both edge and tracing with close firm stitches. For the outer edge trace the edge two or three times according to the thickness required, and then overcast it with close stitches, untwisting the cotton after every second stitch to give the edge a soft shining loop. Satin stitch is very frequently employed in English embroidery. To form it, instead of cutting out the leaf fill it in, by tracing it two or three times, then sew over the whole of the tracing closely, untwisting the cotton and taking care to draw the thread evenly, so as to give the work a soft glossy look, which is its greatest beauty; but the art of doing this can only be attained by practice. The work of this kind done in India is particularly good, the Indians having a peculiar delicacy of touch, and a great deal of very fine work is imported from Madeira.

The best embroidery cotton is undoubtedly the Scotch, but there seems to be great difficulty in procuring it. That usually sold, particularly in London, is French cotton, which is more closely twisted than the Scotch, and does not work so soft. It must always be untwisted to look well. Walker's "Queen's Needles" are peculiarly suited for this embroidery, having a ridge before the eye which prevents the untwisted cotton from wearing.

The Velocipede and Bicycle.—Some fifty years ago a piece of mechanism appeared in this country to which the name of "Dandy Charger" was given, from the circumstance, we may presume, of its being patronized by the fops of that period. The machine had two wheels, each about twenty-nine inches diameter, placed in a line with each other, their axles turning on an iron frame attached to a shaft above them. This shaft was depressed in the middle, where it was furnished with a saddle, and in front it curved upwards, and was fitted there with a cushion or pad, on which the rider might rest his arms as he regulated the movements of the front wheel, which he could turn to the right or the left. The machine was driven onward by an impulse of the rider's feet, which he pressed alternately on the ground as he occupied his saddle. This machine was the prototype of the bicycle of the present time, which is so called from its having two wheels only. The two-wheeled locomotive of our early days was for a time extremely popular, but after some years it fell into disuse, owing, as is not improbable, to its being prejudicial to health, and giving origin not unfrequently to many severe cases of hernia, strangury, and other painful ailments.

The original two-wheeled vehicle was followed by one with three wheels. The wheel in front was driven by means of treadles, like those of the turning lathe; instead of the saddle of its predecessor it possessed a seat placed between the two hind wheels. This piece of mechanism obtained, like the other, some popularity, but at length it fell into oblivion. The advantages were not found sufficient to compensate for the labour of using it, and very probably it was suspected that, like the former one, it might be found injurious.

The contrivances now termed velocipedes, including the two-wheeled vehicle called the bicycle, are reproductions of those to which we have referred, more or less improved by the mechanical skill of the present day. The bicycle is similar to its ancient predecessor with two wheels, with the exception of an important difference in the mode of its propulsion. Instead of being impelled by the rider's feet pushed alternately against the ground, it is driven by the feet of the rider, pressed against a crank formed outside the front wheel by a part of the axle. The impulse is applied at the centre of the wheel, and for one revolution of the crank requiring a movement of the foot through only a few inches, one complete revolution of the driving wheel is obtained, carrying the locomotive over a space of about three times the diameter of the wheel itself. It is clear that a considerable

advantage is thus gained, and with comparatively little labour the rider is able to pass over a great distance, and at a velocity much beyond what it would be possible for him to keep up on foot unless for a very short period. Much skill has been exhibited in the use of the bicycle. Riders have learnt not only to balance themselves while driving the vehicle, but on going down hilly roads, to rest with perfect safety at full length above the wheels, as the machine pursued its downward career by its own gravity. A journey was lately made with a bicycle from beyond Bristol to London, a distance of 135 miles. The traveller left home at 4 p.m., arrived at Reading the same night, left for London next morning, and finished the journey by ten o'clock in the forenoon. The making of these vehicles has become an important branch of trade in Paris. One manufactory employs some two hundred and fifty workmen, and finishes twelve velocipedes per day, to supply a part of the demand of a coachbuilder in Lyons.

A velocipede called the "Edinburgh," patented by Mr. Henry Gibson, and built at the Velocipede Works, St. Leonard's, in that city, seems specially worthy of attention. It has three wheels. "It is constructed on correct mechanical principles, and made of the most suitable materials to combine lightness with strength. The inventor has succeeded in overcoming the obvious defects of the most popular machines in use. Weight and friction are reduced to a minimum." This vehicle is propelled by a driving wheel *behind* the seat of the driver, moved by treadles in front, and furnished with a tire of rubber. This machine "has run fourteen miles an hour on an ordinary road, and will do eleven miles an hour without fatigue to the rider. In speed it has beaten any bicycle hitherto opposed to it. It will go up hills and over roads unsuitable for any other velocipede, and has the distinction of being the first machine introduced into Scotland for postal purposes by the Postmaster-General, as recently suggested by a recommendation in the House of Commons." The quotations we have made are from the inventor's prospectus, and it is added as a recommendation that the "Edinburgh" is capable of being turned to the right or left, or made to run backwards with great facility.

The Game of Golf.—This ancient and interesting game is played on a common such as is frequently found in the vicinity of the sea-shore, consisting of a wide extent of sandy soil covered with bent, and having the surface not level, but broken into hillocks and inequalities. In carrying on the game, the players proceed over a certain track which is called the "course," which is either rectilinear or a figure of any number of sides. At a distance of about a quarter of a mile apart, holes of about four inches in diameter are made in the ground, and the object of the game is to strike a ball from one of these holes into the next with as few strokes as possible, using for this purpose an instrument of a peculiar structure called a club.

The golf ball used formerly to be made of leather stuffed very hard with feathers, and was extremely elastic; but since the introduction of gutta-percha, the ball has been made of that substance, which is found better adapted to the purpose. The ball is about an inch and three quarters in diameter, and in weight from twenty-six to thirty drachms avoirdupois, and it is painted white, so as to be the more easily seen. The club is about four feet in length, about an inch in diameter at the handle, tapering downwards with an elastic shaft, and terminating with a foot placed at about an angle of 45° with the shaft itself, loaded with lead, and protected by a piece of horn at the point at which it strikes the ball. This implement is swung round the player, towards his right hand, and brought against the ball, which is thus shot forwards towards the hole, a distance sometimes of 200 yards, with one stroke. Several clubs, however, are necessary for the proper playing of the game,—the ordinary club already described, the

spoon, the putter, and the irons. The first is employed when the ball lies fair on the ground, and has to be driven to a distance; the spoon is used when the ball lies in a hollow; the iron when it is among sand or gravel, and the putter when it is near the hole.

A MATCH consists of two or more players, usually four. Each side has a ball. The player, at the outset of the game, is entitled to place his ball on a little sand or earth for the greater facility of striking it, but after the first stroke the ball must be played from the spot on which it happens to lie, and the ball which happens to lie at the greatest distance from the hole towards which the players are proceeding, must always be played till it gets before the others. In order to greater facility in counting, those strokes only are counted by which one party in playing has exceeded the other. This rule may be easily explained. Suppose the first two strokes to be given, the player whose ball then lies furthest from the hole or mark must again play. This is called playing *one more*, or *the odds*. If, however, he still does not succeed in placing his ball so near the mark as his opponents' ball is, he must play a third time, which is said to be playing *two more;* and if on this occasion he does not place his ball nearer the mark than the other, he must play *three more*. When the other player then plays he is said to play *one off three;* and if he plays a second time in order to place his ball nearer the hole and before the other, he is said to play *one off two;* if he plays for the same purpose a third time, he is said to play *one off one*, or *the like*. He who plays first again plays the odds. The same rule is observed if the match consists of four; the two partners, however, on each side play alternately. If a ball be struck into the hole by what is called *the like*, that is to say, by an equal number of strokes on both sides, the hole is then said to be halved, and goes for nothing.

Croquet.—Croquet and archery are perhaps the only two outdoor games of skill in which ladies as well as gentlemen may join. We therefore propose to give a few hints on each of these pastimes, and as croquet is decidedly the most universally known, we shall begin with it first. The exertions of the All England Croquet Club and the National Croquet Club have contributed to make this almost a national game, and in order to assimilate the rules and practice of croquet all over the kingdom, a conference was lately held in London, at which nearly every club was represented, when a code of laws was drawn up and agreed to, an abridgment of which is subjoined.

RULES OF CROQUET.

The players shall toss for choice of lead and of balls; and in a succession of games shall take the lead alternately, and keep the same balls.

In commencing, each ball shall be placed at one foot from the first hoop in a direct line between the pegs, and a ball having been struck is at once in play, and croquetable whether it shall have made the first hoop or not.

If a player makes a foul stroke he loses his turn and all points made therein, and the balls remain where they lie, at the option of the adversary. The following are considered foul strokes:—

(*a*) To strike with the mallet another ball instead of or besides one's own in making the stroke.

(*b*) To spoon, that is, to push a ball without an audible knock.

(*c*) To strike a ball twice in the same stroke.

(*d*) To stop a ball with the foot in taking a loose croquet.

(*e*) To allow a ball to touch the mallet in rebounding from the turning peg.

(*f*) To fail to stir the passive ball in taking croquet.

A player continues to play so long as he makes a point or hits a ball. A point consists in making a hoop or hitting the turning peg in order.

A ball has made its hoop when, having passed through from the playing side and ceased to roll, it cannot be touched by a straight-edge played across

the wires on the side from which it was played.

A player who hits a ball must take croquet; that is, must strike his own ball while in contact with the other, so as perceptibly to stir both. A player, when his turn comes round, may hit and croquet each ball in succession, and can do this again after each point made, but between the points can only take croquet once off each ball.

A playing ball which hits another after making a point, is in hand, and the striker can score no point till he has taken croquet. After hitting another a ball may be stopped by any player; but should it, in rolling, displace any of the other balls, such balls must remain where they are driven.

When a player, in his stroke, hits one or more balls, he must take croquet off the ball that is struck first; but if he has hit two simultaneously, he may choose from which of them he will take it, and in both cases a second hit is required before he can take it from the other ball.

A rover which strikes or is driven by another ball against the winning peg is out of the game, and must be removed from the ground.

A player who pegs out a rover by a first hit cannot take croquet from it, as the ball is out of the game, but he is not entitled to another stroke.

Should a player play out of his turn, or with the wrong ball, and this be discovered by his antagonist before a second stroke in error has been made, the turn is lost, and all points made after the mistake, and the balls shall remain as they lay at the time the mistake was discovered, or be replaced to the satisfaction of the antagonist. But if he has made a second stroke before the error is discovered, he continues his break, and the next player follows with the ball that is next in rotation to the one with which he has played, and is liable to lose his turn, and all points made therein, if he plays with that which would have been the right ball if no mistake had been made.

Should a player make the wrong hoop by mistake, or croquet a ball that he is not entitled to croquet, and the mistake be discovered before he had made a second stroke, he loses his turn, and any point so made in error; but if he has made a second stroke before the discovery, he shall be allowed to continue his break.

In order to prevent the occurrence of the errors noticed in the above rules a player is bound, upon being appealed to, to declare truly what is his next hoop or point in order, and is entitled to demand of his antagonist what he has played last, and to insist upon his clips being properly placed.

If a ball lies within a mallet's length of the boundary, and is not the playing ball, it must at once be put out three feet at right angles from the boundary; but if it is the playing ball, it may, at the discretion of the player, either be put out or played from where it lies.

If it is found that the height of the boundary interferes with the stroke, the player may, at the umpire's discretion, bring out the balls so far as to allow of the free swing of the mallet, and in taking croquet both the balls.

Should a player, in trying to make his hoop, knock a wire out of the ground with his ball or mallet, the stroke shall be taken again.

The mallet shall not be held within twelve inches of the head.

If a ball be driven partly through its hoop from the non-playing side, and remain so that a straight-edge placed in contact with the hoop on the non-playing side touches the ball, the ball cannot run its hoop at its next stroke.

THE CROQUET GROUND.—A good croquet ground must be a perfectly level piece of turf, from thirty to sixty yards long by from twenty to fifty yards wide; it should be carefully kept, watered early in the morning, and mown and rolled frequently during the summer months; for this purpose lawn mowers are especially useful, being so light that a lady can use them, and cutting and sweeping up the grass at the same movement.

THE IMPLEMENTS for playing croquet

are usually sold in a box containing either four or eight balls, the same number of mallets, ten iron hoops, and either two or three pegs, coloured in stripes to match the colours of the balls and mallets. These pegs are driven into the turf at the end of whatever distance of the ground is decided on to be the limit of the game, and one or two mallets' length from the extreme boundary. The best balls are of box wood, $3\frac{3}{4}$ in. diameter, and the mallets should be three feet in length. A book showing the form in which the hoops are to be placed is usually sold with each box of implements.

The game consists in driving the balls with the mallets, in a certain order through the hoops to the upper peg, which must be struck, and then back again on the opposite side to the winning-post. The first party *in* wins the game.

Eyes, Nose, Ears, and Mouth.—The Eye.—It has often formed a matter of speculative discussion as to which of the five senses is most important to man's being. A more pleasant subject for reflection, leaving little to debate upon, but teaching a great and impressive lesson that all should learn, is the thousand privileges and joys that arise from the healthy action of the organs of sense, working in unison for the good and safety of our lives. The eyes are the windows of the body, through which the indwelling soul looks outward upon the world. And wonderful windows these are, with self-acting apparatus to open, close, cleanse, and adjust their positions to the requirements of sight. Surmounted by eyebrows that serve to keep the perspiration of the brow, or accidental moisture, from running into them; with eyelashes that help to exclude insects, dust, and exeessive light; with lids which by frequent motion are constantly cleansing the crystal surface; with little springs (glands) that supply moisture for the purposes of cooling and cleansing; with muscular pulleys that shift their positions even without an effort of the will, or in immediate response to our desires; what wonderful organs these are! Observe, too, that they are placed in deep bony sockets, in which they freely move, while they derive protection from the surrounding bones that project above, below, and at the sides; that in man they are placed in the front of the head, with the power of turning in various directions, and by an instantaneous action embracing an extensive range of sight, while in most inferior animals they are lodged in the side of the head, with less capacity for motion.

One of the most remarkable features in connection with the eyes is their wonderful power of expression—the manner in which they indicate tender or thrilling emotions. And this arises not from mere change of position. It is not that the upward look exclusively indicates joy, and the downward sorrow. The same position may express most opposite feelings, arising from that inscrutable influence which, for want of a better word, we denominate "expression."

> "Joy, love, or hate, dart from their varied beams,
> As rich reflections spread from placid streams."

There is an eloquence belonging to the eye which is culpably overlooked. The speaker who impresses us most in conversation is he who looks towards the person or persons addressed: a direct look betokens confidence, candour, honesty; the averted look, carelessness, timidity, insincerity. The bright, clear eye denotes health, temperance, morality; the dull, bleared eye, illness, satiety, and physical oppression. Thus we are warned by an early intimation from the very windows of our bodies that something is wrong; as, when we see the windows of a house disordered and unclean, we may infer that there is something amiss within.

The nose is a very prominent and characteristic member of the human body; and not half so well cared for as it should be, considering the share he takes in giving character to the countenance. Thus we have one-sided noses,

depressed or broken noses, snub noses, and—who knows how many other forms of noses? The framework of the nose is almost wholly cartilaginous (a formation intermediate between bone and flesh), and in infancy is so pliable that, with very little care, and with no pain to the little creatures to whom they belong, the noses of infants might be considerably improved, and receive shape and direction that would greatly improve the features in after life. This may be accomplished by frequent and gentle touches of the hand, by avoiding rough action in washing, and by carefully watching the position which infants take in their sleeping hours. To be "led by the nose" is a phrase generally contemptuously employed; but mankind can scarcely follow a better leader. He is the chief officer of health to the body corporate. Placed in the middle of the face, right under the eyes, and immediately over the mouth, he is the guardian, the custom-house officer, to inspect and report upon the importations to the lungs and the stomach. The eyes may discover signs of putridity, decay, or other impurity in animal and vegetable food. But they cannot do so in all cases; nor in any case of effluvium, escape of gas, or other pollution of a transparent kind affecting the atmosphere, whose purity is so vital to our well-being. And it should be observed that the nose is placed exactly where and in the precise direction wanted. Its funnels are turned downwards towards the earth, to meet alike the perfume that rises from the flower, and the obnoxious escape from the sewer. And so watchful is the nose, that we can detect an indescribably small amount of odorous or inodorous admixture with vital air. Attend, therefore, to the admonitions of the nose; and when he gives you warning, be sure that health and safety demand that you should attend to his premonitions. If he is pleased, you need not be offended; for it may be accepted as a rule that pleasant, and especially natural odours, are not unhealthy; but when the nose complains and takes offence, there is an enemy about that should be looked after.

The ears, having little to do with the immediate functions of the lungs and stomach, are placed, very wisely, one on either side of the head. They are incapable of motion themselves, but partake of the motion of the neck, by which they can be turned in any direction. The ears are sentinels that guard us from all points,—by warning us from dangers behind, from hidden places that the eye cannot see, from things that menace us in the dark. They are the chief sentinels that guard us in the long hours of night. Aroused from slumber, the eyes require a few seconds to get into order; they require a little moistening and cleansing from accumulated humours; and adjustment to the degree of natural or artificial light. There are, consequently, numerous winkings and blinkings. But the ear does not wink nor blink. He is awake in a moment; open, and ready, as a good watchman, at all hours. Prize the ear, therefore, as a worthy servant; but let him serve you as a guardian in more than the mere conduct of sound. Let him be a moral agent. As the nose takes offence at foul air, so let your ears be offended at foul words, at unclean expressions, at frivolous gossip and vicious scandal.

The Mouth.—A volume might be written about the mouth. But a few points of interest may be suggested. He is neither constantly open, like the ears, nor moveable in the same degree as the eyes. He is in close communication with the nose, and if the latter neglects any duty, or the mouth suspects anything wrong, he can instantly communicate with the nose through internal tubes, and rouse him to duty. Like the eyes, the external mouth has a wonderful power of expression, and even the lips may speak without uttering a word. As far as the mouth is connected with the process of digestion, we propose to defer any remarks thereon for a future page, in which will be found a strong appeal on behalf of the greatest of all slaves, the oppressed stomach. But as an organ of

speech the mouth claims present mention. Speaking (we mean conversationally) is a qualification sadly neglected. Our utterances are generally slovenly—what a pity it is to slight one of the greatest and most distinguishing blessings, the gift of speech!—to drawl and grunt our words instead of giving them clear and appropriate enunciation! But this is an accomplishment that can scarcely be acquired in after life. As little boys' noses can be best improved in their infancy, so with little boys' tongues. They may then be taught to acquire the full and true faculty of speech. Griffin, who has drawled his words through life, is hardly likely to go in for improvement of speech after he has opened a ham and beef shop; or should Griffin occupy another walk in life, and become a hairdresser, or a chemist, or a linendraper, he will only make a miscarriage and overstep propriety if he seeks to improve by mere imitation, because he will probably select extreme examples, and copy the affected fop rather than the educated speaker. Correct speaking should be the lesson of youth and the discipline of schools. The acquirement of language is one thing, the proper use of it another. This is the more desirable because provincialisms which once offered an apology for some barbarities of speech are rapidly becoming extinct, and language is acquiring a more uniform and harmonious expression. Few things grieve us more than to hear the strange contention frequently carried on between the mouth and the nose. The fault lies entirely with the owner of these useful and usually obedient organs. Some people, instead of sending their words through the open door of the mouth, persist in forcing them through the narrow channels of the nostrils. The nose appears to object to this as a trespass, and the mouth raises a cry of dissatisfaction; the consequence is, the worst of all defects in speaking, the nasal twang, or what is popularly known as "speaking through the nose."

Sunstroke.—Attacks of sunstroke are not often met with outside the tropical regions, but lately in England, owing to the great heat which has recently prevailed, there have been some fatal cases.

Sunstroke generally follows from direct exposure to the vertical rays of the sun, and persons are more liable to attacks when in a weak and exhausted state.

The attack begins with a feeling of faintness, great heat and dryness of the skin, with intense thirst; vomiting frequently occurs, there is loss of speech, and the patient becomes insensible.

Treatment.—Get the patient into a cool shady place as soon as possible, loosen all clothes about his neck and chest, dash cold water over his head and neck. If he can swallow, give twenty drops of sal-volatile in a glass of brandy, and let him drink iced water or cold tea. Sinapisms and turpentine stupes to the extremities are useful. Bleeding or even leeching has been found to be so fatal that it should never be practised.

Best Method of treating Worms.—The three principal varieties of intestinal worms are,—

1. The round threadworm, found generally in the lower end of the bowel in quantities. These are the most common worms in children.

2. The large roundworm, found chiefly in ill-fed children.

3. Tapeworm, most generally found in adults.

The common symptoms of worms are colicky pain and swelling of the abdomen, foulness of the breath, grinding of the teeth at night, irregularity of the bowels, with constant itching at the lower part, frequent feeling of ill-health and a variable appetite,—sometimes excessive.

Treatment.—For the small threadworms give the following powders:—Compound powder of scammony eight grains, calomel six grains, aromatic powder ten grains. Mix. Divide into six powders. Dose for a child two years old, one powder early in the morning.

Enemas of cold water or infusion of quassia are useful.

For the round and tape worm, turpentine and castor oil are recommended; also santoniac in doses of one to six grains, according to age. Kousso, kamela, and the liquid extract of male fern are also useful in killing and causing the expulsion of these worms.

Squinting.—It is well known that in infancy there is not unfrequently a tendency to squint; this often passes away as the child increases in age; but it sometimes becomes quite a fixed habit, demanding the knife of the oculist for its permanent cure. A means of rendering this operation unnecessary by curing the tendency in early life has been suggested, which is worthy of trial. A pair of spectacles is procured without any glasses in them. One of the orifices opposite the eye that squints is to be filled with thin horn or with ground glass, and in the centre of the horn or glass is to be made a small hole. It is obvious that to see with the squinting eye it is necessary for the child to look directly through the orifice in the centre. He will thus acquire the habit of looking forward towards an object, instead of looking to the right or left hand of it. It is not at all improbable that the slight squint, which in infancy is apparently only a habit, may be remedied by this means.

Liniments.—For Whooping-Cough.—Olive oil eight ounces, oil of amber four ounces, oil of cloves a sufficient quantity to give it a strong scent. Mix. Rubbed on the chest it stimulates the skin; it is useful in general for the coughs of children; in whooping-cough, however, it ought not to be used for the first ten days of the disease. This liniment is understood to be the same as the celebrated embrocation of Roche.

Liniment of Ammonia or Hartshorn.—Spirit of hartshorn one ounce, olive oil two ounces; mix, and shake the phial till they unite. This is excellent in inflammatory sore throat. It should be rubbed on, the operator standing behind the patient, placing his hands, covered with the liniment, beneath the chin, and drawing them up towards the ears. The rubbing itself is beneficial; the liniment may, however, be applied round the throat by spreading it on a piece of flannel.

Stimulating Liniment. — Strong liniment of ammonia an ounce and a half, oil of turpentine one ounce, spirit of camphor one ounce, hard soap four drachms. Mix them well. This is a strong and active application, well adapted for severe chronic rheumatism where there is no inflammation, and also for sprains and palsy of the limbs.

Plasters are made of substances which become soft at the ordinary heat of the body, and by adhering to the skin, produce their intended effects, according to the substances with which they are prepared. Of these we give several examples. In all cases the preparation is intended to be spread upon leather and applied to the skin.

The Warm Plaster. — For this plaster, take one part of blistering plaster, and of Burgundy pitch fourteen parts; mix them by means of a moderate heat. This plaster is stimulant, slightly irritating the skin, and is of use in ordinary coughs and whooping-cough, sciatica, and other local pains.

Anodyne Plaster. — Powdered opium half an ounce, resin of the spruce fir powdered three ounces, lead plaster one pound. Melt the plaster and resin together, then add the opium and mix the whole. Useful for rheumatic pains.

Resolvent Plaster.—Purified ammoniac one pound, purified mercury three ounces, sulphuretted oil a fluid drachm. The mercury must be rubbed with the sulphuretted oil till the globules disappear, and the ammoniac previously melted added gradually, and the whole mixed together. This plaster has great efficacy in promoting the absorption of glandular swellings and indolent tumours. It is of much use also as an application to corns and bunions. It can be obtained from the apothecary, and is usually known as the plaster of ammoniac and mercury.

Cough Plaster.—Castile soap one ounce, lead plaster two drachms, sal-ammoniac one drachm. Melt the soap and lead plaster together, and add the ammoniac when the mixture is nearly cold. This plaster must be applied to the chest immediately after it is spread, and must be renewed every twenty-four hours. It is often of great service in whooping-cough and coughs of an asthmatic character.

Strengthening Plaster.—Litharge plaster twenty-four parts, white resin six parts, yellow wax and olive oil of each three parts, red oxide of iron eight parts. Let the oxide be rubbed with oil and the other ingredients added melted, and mix the whole well together. This is an excellent plaster for relaxation of the muscles and weakness of the joints arising from sprains and bruises. The plaster spread over leather should be cut into strips two inches wide, and strapped firmly round the joint.

Bed Sores.—Remove the excessive discharge by gently pressing the part with a bit of cotton wadding; then paint the sore over with Dr. Richardson's colloid styptic (which can be obtained at a chemist's), using a soft camel-hair pencil. The application may be repeated daily, and when it has well dried place a bit of soft lint or cotton wadding over the part for protection.

Cookery for Invalids.—Chicken Broth.—Cut a chicken into small pieces, remove the skin and any fat that is visible; boil it for twenty minutes in about a quart of water with a blade of mace, a slice of onion, and ten corns of white pepper. Simmer slowly till the flavour be good. Beat a quarter of an ounce of sweet almonds with a little water, add it to the broth, strain it, and when cold take off the fat.

Mutton Broth.—Two pounds of a neck of mutton, a large handful of chervil; put these into two quarts of water and boil down to one quart. All of the fat should be removed. A pint may be taken two or three times a day. It affords excellent nutriment to the weak.

Veal Broth.—Put a knuckle of a leg or shoulder of veal, an old fowl, and four shank bones of mutton, three blades of mace, ten peppercorns, an onion, a piece of bread, and three quarts of water into a soup pot; cover it close, and after it has boiled up and been skimmed, strain, take off the fat, and add salt.

Broth of Beef, Mutton, and Veal.—Put two pounds of lean beef, one pound of scrag of veal, one pound of scrag of mutton, sweet herbs, and ten peppercorns into the saucepan, with five quarts of water. Simmer down to three quarts, and when cold skim off the fat.

Calf's-Foot Broth.—Boil two feet in three quarts of water to one-half; strain, and set it by for use. When required take off the fat, put a large teacupful of the jelly into the saucepan with half a glass of white wine, a little sugar and nutmeg, heat it up till nearly boiling; then with a little of it beat up the yolk of an egg, add a bit of butter, and stir all together without allowing it to boil. A little fresh lemon peel may be grated into it.

Drinks for Invalids.—Cream of Tartar Drink, or "Imperial."—Cream of tartar one ounce, essential oil of lemons fifteen drops, white sugar two ounces, boiling water two pints. Mix. To be used cold.

Saline Lemonade.—Common salt one drachm, chlorate of potash one and a quarter drachms, Rochelle salts one drachm, phosphate of soda one scruple, fresh lemon juice one and a half ounces, syrup of lemon four ounces, water two pints. Mix. This drink, iced, may be taken freely, and will be found most agreeable, and useful in cases of English cholera and choleraic diarrhœa, common during the summer months.

Constitution Water.—Bicarbonate of potash half an ounce, freshly made syrup of lemons an ounce, water two pints. Mix. This quantity may be taken during the day. It will be found very efficacious in cases of rheumatism

where there is great acidity of the perspiration and other secretions.

Artificial Asses' and Goats' Milk.—To a pint of good new cow's milk add one ounce of refined sugar, half an ounce of gelatine, dissolved in half a pint of hot barley water.

Another Way.—Boil slowly in a quart of new milk an ounce of veal suet, chopped very fine, and tied tightly in a muslin bag; sweeten with refined sugar or a glass of liqueur, according to taste.

These preparations will be found suitable for invalids with delicate stomachs, where the unpleasant odour of the natural goat's milk prevents its being taken.

To Prevent the Attacks of Gnats.—The best preventive against gnats, as well as the best cure for their stings, is camphor.

Camphor ice is very easily made, and is most effectual, not only against insects, but against the effects of harsh winds. Put one ounce of spermaceti, a quarter of an ounce of white wax, and half an ounce of camphor, into one ounce of olive oil; put these ingredients into an earthenware jar, set it in a cool oven, and while melting stir frequently; pour into little pots for use.

To Cure Stings of Bees and Wasps. — These stings, though very painful, are not dangerous to a healthy person, unless in the mouth, throat, or eyelid. The bee leaves its sting in the wound; carefully extract this, and gently rub the spot with equal parts of olive oil and hartshorn; Goulard's lotion is also recommended for the same purpose.

To Remove Freckles.—Many cosmetics have been recommended for this purpose, but these are always more or less dangerous or injurious to the skin; a very simple and harmless remedy is equal parts of pure glycerine and rose water, applied every night, and allowed to dry. The following lotion is harmless:—one drachm of sal-ammoniac, dissolved in a pint of spring water, add a quarter of an ounce of eau de Cologne; apply it night and morning.

Seaside Studies. — Zoophytes.—Natural history brings into notice some creatures whose organization is so simple as greatly to resemble that of certain plants, but which nevertheless belong to the animal kingdom, being evidently endued with vitality. The general term Zoophytes has been applied to this order of beings to express the idea of the relation they possess to members of the two great departments of nature—the animal and the vegetable kingdoms. The variety and numbers of such creatures are marvellous; all we profess to do therefore is to direct the reader's attention to a very few of them, and those only which are likely to be seen on any of our rocky sea-shores.

The Actiniæ—better known by their popular name as Sea-anemones, from the general resemblance some of them bear to the flowers so called—are numerous and various,—a circumstance not without its use; for this reason, that our readers, once able to recognise a specimen of this zoophyte, may expect to be able to discover many others of a different character without depending on any written direction on the subject. The *Actinia dianthus*, so called from the resemblance it bears to the feathery petals of the carnation, may be easily discovered in the rock pools left by the recess of the tide. Its colours are various: sometimes it is perfectly white, sometimes orange, pale scarlet, blood-red, brown, green, and of a dusky and neutral hue. The *Actinia gemmacea* has obtained its appellation from the gem-like appearance it assumes, and which is derived from the touches of colour about the mouth and tentacles, and the rows of brightly tinted tubercles on its body. The *Actinia anguicoma* derives its name from the form of its tentacles, which issue from the body of the animal in long, slender, snake-like hairs. The *Actinia mesembryanthemum* has tentacles of a beautiful rose-pink hue; and the *Actinia crassicornis*, one of the prettiest of the commoner species, has the orifice of the mouth or stomach of a delicate straw colour, the tentacles

white, variegated with bands of delicate pink, and the body a rich orange brown with tubercles of bright yellow. These and all the other creatures of the class, when in a state of inactivity, have their tentacles drawn within their bodies and the bodies themselves reduced in bulk, and in form altered to that of a convex mass, in some instances resembling in an exact manner a small inverted cup of reddish coloured jelly, a figure they assume when the ebbing waters leave them dry, or when they are touched with the finger or with a stick. More than twenty species of Actiniæ have been discovered by British naturalists; but probably a great many more await discovery.

Among the zoophytes is the common *Madrepore*, which is distinct from the Actiniæ although allied to them. This zoophyte is a member of that family of creatures which are distinguished for the production of coral. It may be found adhering to the rocks. Its shell or habitation consists of a series of thin calcareous plates, standing on edge and radiating as if from a centre; the tentacles are tinted with the most delicate hues, and when carefully and minutely examined the madrepore is a most interesting and beautiful object. The sea-shore presents to view a number of those wonderful structures, bodies, or dwellings—for it is not easy to select any correct title for them—in which an immense number of zoophytes live together, each individual independent of the other, and yet all of them having something to do in the construction of the common habitation. One of the most remarkable of these communities is what is known in popular language as "*dead men's fingers*," and in scientific nomenclature "*Alcyonium digitatum*." It is occasionally found on the sea-shore, left as some of the *jelly-fishes* are by the receding waves. When found so cast ashore the alcyonium is anything but attractive in its appearance: its aspect, indeed, is rather repulsive; but a close examination of it, under suitable circumstances, amply repays the requisite trouble. It is found to be an immense community of minute polyps, each, although individually independent, interested in the well-being of the whole society. When placed in the salt water, the individual polyps appear standing out from their abodes, and each having a mouth or head, composed of eight radiating slender petals, fringed with delicate hairs.

The Sertularia is another of those marvellous creatures, or, rather, assemblage of creatures frequently found on our shores, left by the tide dead or dying, or found attached to the larger sea-plants at low-water mark. It has a stem and numerous branches, in which innumerable joints appear; and at first sight it appears to be some kind of sea-weed. It is, however, a congeries of polypi living together in an edifice with the erection of which each of them has had something to do; and each, therefore, possessing a common instinct for that end, no less wonderful than the instinct by which the honey-bees build their cells. An examination of the sertularia with a microscope will show that on the branches of this apparent plant is a double row of minute cells, each of which is the abode of a polyp with a star-like head, which is protruded in search of nourishment whenever the habitation is covered with the sea water. The *Plumularia* is another of these wonderful communities, and it differs from the preceding in the position of the cells in which the inhabitants reside.

Zoophytes are, in their structure, calculated to afford matter of the utmost astonishment and admiration when examined with the help of a suitable magnifying glass. The structure is found to be beautiful in the extreme; the mechanism of their parts, the exquisite arrangements by which those functions are carried on by which their stony dwellings are made out of the materials furnished by the water itself; their strange although minute forms; the manner in which they collect their food, are all matters replete with interest, both to the student of natural history, and the ordinary observer.

The Art of Angling.—Treatises on "the gentle art" usually commence with an elaborate and minute description of various kinds of fishing-rods, and the mode of making them, as well as the tackle necessary to the angler. Very few, however, of the disciples of good old Izaak Walton ever think of constructing either their rods, lines, or tackle. All the apparatus they require can be obtained from our fishing tackle shops quite as cheaply and certainly much better and more neatly manufactured than those which anglers in general can construct.

Presuming, then, that the great majority of our readers are likely to furnish themselves with all they require at the fishing tackle makers, we shall make a few remarks on the subject of their proper equipment for the pursuit of this delightful recreation.

We shall begin with a few words on angling by bait or bottom fishing, as applied to the less known river fish, such as roach, dace, bream, &c.; and in a future page we shall treat of fishing for trout and salmon by bait, and also on fly-fishing, which is by far the most favourite mode, although it requires considerably more skill and dexterity.

Bait, Fishing-Rods, and Tackle.—For all sorts of bait or bottom fishing one good general rod, furnished with a reel containing thirty or forty yards of well-made hair line, will be found perfectly suitable, together with a line consisting of a couple of yards of gut, on which, attached to the end of the eel line, the hook or hooks must be tied on, and weighted with one or two pellets of split shot, eight or ten inches apart. The hooks must, of course, be adapted in size to the fish which the angler expects to capture, and the float, if he uses one, must likewise be of appropriate dimensions. All these pieces of tackle the angler ought to carry with him, and also an additional supply to replace those that may be lost by becoming entangled. As a general rule, the multiplying reel, the landing net, the gaff-hook, the clearing ring, the baiting needle, and the disgorger are quite superfluous; the gaff and the landing net need hardly ever form a part of the angler's equipment, unless he has reason to expect very large and heavy fish.

Many of our streams and rivers are frequented by small fish, which not only afford excellent amusement to the young angler, but are used as bait in angling for larger fish. Among these are the minnow, the bullhead, the loach, and the bleak.

These little fish are to be found in most of our clear gravelly brooks. They are gregarious, and may be seen in immense shoals about the tails of streams where the water is a foot or two in depth.

The gudgeon is well adapted to amuse the tyro angler. It keeps near the ground, delighting in gravelly streams where the water flows gently. The bait used should be a small red worm, and by baiting several hooks at a time a fish may be taken with each of them.

The Roach.—These fish are gregarious. They prefer swift gravelly streams, and are to be found in many of the rivers of England. The roach, when small, is easily taken, but the larger ones possess greater cunning and wariness, and require more skill for their capture. Roach tackle ought to be fine and delicate. Many fishers use a single hair below the float, which ought to be made of a quill, and so easily moved as to sink under the surface with the smallest bite. The float ought to swim perpendicularly, and the angler ought to have only a couple of feet of his line between the float and the end of his rod, so as to be able to strike the moment the fish touches the bait. The best bait for roach is the maggot or gentle, one of which is sufficient upon a small hook; but paste is employed with effect, and some roach fishers prefer it to any other. The paste is made with fine white flour, kneaded into dough and coloured with vermilion, so as to have the light red hue of the salmon. This paste may have kneaded up in it a very small

quantity of fine cotton, which will give it tenacity on the hook.

The Dace and the Bream.—These fish are taken with the same baits as the roach, and with equally fine tackle, but a small maggot will prove very enticing. By this mode dozens of dace or bream may be taken on a fine summer evening. In angling for bream the angler ought to let his hook touch the bottom, but he should fish as far from the bank as possible, and try to keep out of sight.

The Barbel.—This fish prefers the deep places of rapid rivers, mill-pools, and eddies, and the best time for taking them is early in the morning and late in the evening. A lobworm is the best bait, especially when the water is discoloured; but when the water is clear they are readily taken with a bait of paste made of mutton suet and cheese worked up together. Salmon roe is also an excellent bait. The tackle for barbel ought to be strong, as the fish are often large and heavy, and make a very obstinate resistance when hooked, running under roots and banks of weeds.

The Carp and the Tench.—The carp is an extremely cunning fish, and so capricious as to be sometimes quite resolute in refusing every temptation the angler can present him with. The best baits, however, are a couple of red worms or gentles, but the carp, when inclined to feed, will take a paste made of white flour, like that for roach, and it is said that this is more effective when mixed with a little honey. A large green pea boiled in sugar, or part of a ripe cherry, is said to be excellent. The tackle ought to be fine and delicate, and the angler must keep out of sight as much as he possibly can. The tench is to be angled for in the same manner as carp, and with similar baits. It is found of service to put ground bait into the water the night before you fish, and, while angling, to throw into the water from time to time pieces of the bait you are using.

The chub frequents deep rivers. It is an extremely timid fish; when lying near the top of the water, which it frequently does in warm weather, the shadow even of a bird passing causes it to dart out of sight in a moment; the angler requires therefore to take great care not to show himself. The best baits for chub are gentles and paste. The chub may be taken also with moths, flies, and beetles dropped with a delicate hand on the top of the water from behind a bush, which will prevent the angler from being seen.

The Perch.—This is an excellent fish, and better adapted for the table than any of those already referred to. Its favourite resorts are the deep parts of ponds and rivers, and it delights to frequent the still waters and gentle eddies so often found near bridges, floodgates, piers, and similar places. A moderate sized worm is a good bait, but we ourselves have captured as many as seven and eight dozen of perch in three hours by using the large grey maggot found under the turf, where drains are near. For large perch nothing is so effective as a minnow. The tackle for perch ought to be strong, for the perch bites boldly, and exhibits none of the caution so characteristic of the carp and some other fish. The best time for angling for perch is the morning and evening, but in a dark cloudy day with a soft south wind they may be taken at any hour.

The Grayling.—The baits for this fish are worms and gentles, and the caddis bait is also excellent. The tackle ought to be light and fine. The grayling is in season in winter instead of summer, and in this respect differs from the trout. It is found chiefly in the rivers in the southern and western counties, but within the last few years it has been introduced into the Clyde, above Lanark, where it seems to thrive.

The Pike.—This fish is an inhabitant of all our great lakes, in which it often attains to a great size. It is found likewise in most large rivers in which the current is gentle, and it prefers those places, both in lakes and rivers, where there are weeds, among which the pike is fond of lying in sunny weather near the surface, and from

among which, when he is hungry, he darts upon his prey. The pike, when in the humour, will take any kind of bait, but some are more tempting to him than others. The minnow, the loach, the bleak, the gudgeon, and the roach are all excellent baits, but equal to any of them, and in some respects superior is a piece of a silver eel, about as thick as one's forefinger, and four inches or so in length. The tackle adapted to these can be readily procured at a fishing tackle shop, or constructed by the angler himself. It consists of about twelve inches of gimp, at one end of which there is a swivel, and at the other four or six hooks tied back to back, at intervals of about an inch and a half from each other. The hooks should be of moderate size, the great hooks sold for pike-fishing at the shops being only adapted to places where the pike are large and the waters are well stocked. Lead ought to be placed on the gimp between the hooks, so as to cause the bait to keep below the surface and sink readily. Pike being a fish of prey, he prefers the bait which has the appearance of life; and although he will take a motionless bait if it is fresh, yet a little fish, pulled through the water with short jerks, presents to him an irresistible temptation. This mode of pike-fishing is the most desirable. The angler may occupy a boat, and as it is pulled leisurely along near the weeds, his bait, as it darts from side to side behind the boat, will so exactly represent a living fish that in most cases success will be certain. But instead of being seated in a boat the angler may fish from the river side, which is certainly the most agreeable method, casting the bait far into the water, and drawing it towards him afterwards, or walking slowly along with the bait in the water at a distance behind him. For pike-fishing the tackle ought to be good and strong. When inclined to take, the pike has too urgent an appetite to permit him to exercise any great degree of caution, and he darts at his prey with the most perfect determination to secure it.

Bankers' Cheques. — The drawer of a cheque remains liable for the amount named on it for any period within six years. When a cheque is not paid, the banker with whom it has been deposited must give prompt notice of the fact to his customers; if he fail to do so, he is personally liable for the loss. When a cheque is crossed with the name of a banker, the banker with whom it is drawn must not pass the cheque to any other than the banker with whose name it is crossed; or if crossed without a banker's name, to any other than a banker. A banker who pays a forged cheque must bear the loss. A cheque payable *to bearer* on demand is void if post-dated; but a cheque payable to order is not rendered void by being post-dated.

Bills of Exchange.—A bill of exchange is a writing on stamped paper, in which one party, termed the drawer, requires another party, called the acceptor, to pay to his order a sum of money named in the bill. A bill or promissory note is not invalid though dated on a Sunday; if it falls due on a Sunday or other holiday, it is payable on the preceding day. A bill must be paid in cash, and not by cheque, but if the holder of the bill agrees to take payment by a cheque he is entitled to hold the bill until the cheque is paid. If it is payable at a certain time after sight, it must be presented, so that the time may thereupon begin to run. Bills or notes payable in England for less than twenty shillings are void; bills for more than 20s. and under £5 are void unless they specify the precise address of the payer, or are attested by a subscribing witness, and are made payable within 21 days after date. When a bill is drawn or accepted payable in a particular place, the drawer or endorser can only be rendered liable upon presentment and dishonour at that place. Notice of dishonour must be given. A bill of exchange continues negotiable until paid at or after maturity by the acceptor or party pecuniarily liable. There are three days of grace granted to an acceptor of a bill of exchange, unless

in the case of a bill payable on demand.

To Clean Knives.—For a large family, an hotel, or dining-rooms, a rotatory knife cleaner is absolutely necessary. These most useful machines can be had of all sizes and various prices, they can clean from three to ten knives at once. Kent's Patent Rotary Knife Cleaner is, perhaps, the best of these machines; Mr. Kent is the oldest and most known maker, and he has lately patented several important improvements by which all the objections that formerly used to be made to these machines in consequence of their being put out of order, by the carelessness of servants, are now obviated; it being almost impossible to disarrange these new machines, or to wear out the knife by cleaning, as the pressure of the brushes on the blade of the knife is so uniformly regulated that the friction is equal on every part, and the aperture in which the knife is placed is so constructed that the back cannot become bent or strained. There is also a most ingenious contrivance by which, in taking out the knife after cleaning, the edge is preserved from injury by striking against an ivory roller instead of a brass sheath, as formerly used to be the case. A carefully prepared emery powder is used with these machines, and this is also excellent for cleaning all fine steel grates, fenders, ornaments, &c.

The next best mode of cleaning knives for those whose family consists of only two or three persons, or who cannot afford a knife-cleaner, is to have an india-rubber or linoleum knife-board. This can be procured of any ironmonger, as well as the Wellington paste for using with it.

At Kent's may also be seen the—

Apple and Potato Parer.—This very ingenious contrivance is another of the many inventions of modern days to save manual labour; it will pare, take out the core, and slice an apple, all at the same moment. By removing a blade it can be used for paring only, and will serve for paring potatoes and turnips as well as apples. It is very inexpensive, varying in price from 8s. 6d. to 12s. 6d.

The Pea Sheller.—This new invention may take rank beside the mincing machine and the apple parer. The pea pods are thrown into a hopper, and after a handle has been moved backwards and forwards a few times, the empty pods pass out in front, while the peas drop into a drawer underneath. One of these machines will shell a peck of peas in ten minutes.

Mincing and Sausage Machines.—These small but useful machines have become very well known and approved of late years; they are extremely convenient, owing to the simplicity of their construction, and the readiness with which they can be fixed to a table, and applied to almost any kind of mincing or chopping work. They are somewhat like a coffee mill in form, having a little hopper in which the meat (cut into pieces about an inch square) is placed; underneath this hopper is a small chamber, having a row of steel blades fixed in the under side of it. The meat is pressed against these knives by a revolving cylinder with steel projections going round it in a spiral form, and as the meat is cut it is forced out of an aperture for the purpose in the end of the chamber. If sausages are to be filled, a tin nozzle fits into this aperture; the sausage skin is stretched over the nozzle, and the meat and seasoning, properly mixed, pass into the skin. These machines can mince suet, apples, vegetables, as well as meat. Some flour must be used with the suet to prevent it from clogging the machine. They are very easily cleaned, but they must be kept particularly free from morsels of meat when not in use; the cylinder lifts out, and the projections on it, as well as the inside of the machine, should be cleaned after each time of using with very hot water and a brush. They may be procured at various prices from 10s. 6d. upwards, according to their sizes. Directions for use are sent with each machine.

Washing and Wringing Machines. — These machines, which are now becoming very generally used, are of various forms and modes of construction, but the object in all is to remove grease and dirt from clothing with the least possible labour and the smallest amount of injury to the fabric, at the same time that the cleansing must be perfect. An equal amount of friction can be produced by the machine, and much hotter water used than any hand will bear. A considerably smaller quantity of soap is required, but boiling water is necessary to extract grease, as well as some soda or washing powder if the clothes be very much soiled.

SOME WASHING MACHINES are constructed on a principle similar to that of the old-fashioned dolly, which rubbed the clothes about in a common washing-tub. These machines have rollers or balls of wood, which are dashed about among the clothes by a wheel worked by a handle and fixed in a box, in which the linen, with soap and boiling water, is placed. In others, the clothes are lifted by ribs on a wheel, and allowed to fall back again into a box with ridges at equal distances, which rub the articles against each other, as well as against the wheel. Another machine has a cylinder formed of bars of wood, on which are placed brushes, which can be removed at pleasure. The linen is placed in this cylinder, and by a handle it is turned backwards and forwards alternately through the soap and water contained in the outer box, thus producing a certain amount of friction.

Perhaps the most complete machine is one which can both wash, wring, and mangle. The clothes are placed in a box, and rubbed against ribs on the inside of it at each turn of a wheel, which also changes the position of the clothes. The wringer forms a mangle, by having a hard board introduced below the rollers to make a table, on which to lay the linen. There is also a wringing machine with india-rubber rollers that can be fixed to any ordinary washing-tub; and a rinsing, bluing, and wringing trough, a most useful article, having two compartments, one each for clean, and blue water, with a wringing machine fixed to it, and a cover, which forms a tray to lay the linen on when wrung.

By the help of these two machines one woman can perform nearly as much as four could by the old system; it is obvious, therefore, that there is a great saving both of time and trouble in using them, and we have the testimony of many heads of families where they have long been used, as to their efficiency in these points, as well as to the small amount of injury done to the clothing, particularly in the operation of wringing. The best and most favourite washing machines are the Eclipse of Robertson Cooke and Co., and the Home Washer of Bell Brothers.

Hints on Washing.—The linen for Monday's wash should be collected on Saturday, sorted and put to soak in cold water according to the various kinds. The body linen should be put into one tub, the bed and table linen in another, and the fine things separately. Plain collars, cuffs, wristbands, should be strung through the button-holes on a piece of bobbin long enough to enable the articles to be easily divided for rubbing, starching, &c. Coloured muslins, prints, and flannels must be laid aside to be washed in a different manner from white calico or linen. Properly boiled suds are far better than soap for washing, particularly if a washing machine be employed. The suds should be prepared in the following manner:—Shred into an earthenware jar the best yellow soap cut into very fine shavings, and pour boiling water to the quantity required. One pound of soap is plenty for one gallon of water. Add to this quantity half a pound of the best Scotch soda, and set the jar (covered) on a stove or at the back of the kitchen range till the soap is quite dissolved. If this be done on Saturday evening, the soap will be a smooth jelly fit to use on Monday morning.

THE BODY LINEN is the first that

should go into the machine, after being well washed and rinsed in clean suds; if it requires boiling it should be put into the copper. Unless linen is very much soiled, it will not require boiling more than every second time it is washed. In a moderate sized copper put about two pints of the soap jelly already mentioned; fill it with cold water and put in the clothes; stir frequently to prevent them from burning, and only leave them in the copper ten minutes after the water begins to boil. Take them out, rinse them very well, and blue them. To blue them well use the best stone blue tied in a bag of thick flannel, do one article at a time, and avoid letting it fall to the bottom of the tub, as the blue falls to the bottom, and the linen is apt to be streaked and spotted with blue, which is very hard to get out.

Bed and table linen should be treated in a similar way. The Dutch and Belgian washerwomen, who get up linen beautifully, do not use soda, but borax, in the proportion of a handful of refined borax to about ten gallons of boiling water. They save nearly half the quantity of soap, and the borax does not injure in the least even fine lace or cambric.

Chloride of lime is the English laundress's favourite chemical. She sees no reason why it should not clean all things equally well. And so it does—removing the colour as well as the dirt. As a rule Manby's Washing Crystal Powder is very good for common coloured things. They must not be soaked like white clothes, but washed and dried as quickly as possible.

The French Method of Washing Coloured Muslins, Piqués, &c.—Prepare some rather warm (not hot) lather, made with soft water and the best white soap; wash the dresses one at a time, but do not soak them. As soon as the first lather looks soiled squeeze the dress from it, and at once wash it again in a fresh lather. When thoroughly clean, rinse in pure cold water, lastly in water slightly blued; squeeze (not wring) the water completely from the dress, and hang it in a shaded place to dry; if wet weather, dry it by the fire. The best prints will fade if hung in the sunshine.

In getting up muslins and piqués the failure is not generally in the washing, but in the starching. A good-sized panful of starch should be used, in which three or four inches of composite or other candle has been melted whilst hot. The articles should be thoroughly squeezed from the starch, and folded whilst wet between folds of old sheeting or table linen. They should then be passed beneath the rollers of a mangle, or through a wringing machine. All lumps of starch are thus removed.

Piqués should be ironed as lightly as possible, and the iron ought never to come into contact with the outside surface of the *piqué*. An old cambric handkerchief is the best thing to use under the iron where absolutely necessary to iron on the right side.

To Wash a Lama Dress that has Bright or Delicate Colours.—Boil one pound of the best rice in one gallon of water for three hours. When boiled pour off what will be sufficient to starch the dress; wash the dress well in the remainder, rinse it in clean cold water, wring it well, then starch it with the rice water that was kept for that purpose, and hang it before the fire to dry. When dry enough iron with a cool iron, as it is liable to scorch. If some parts of the dress get too dry, they must be damped with a wet cloth whilst ironing. No soap must be used. The best way is to boil the rice on the previous day, and merely warm it up the next morning, for then you have the day before you to complete the whole, as the dress must on no account lie damp, even for an hour, or the colours will be sure to run. This receipt will be found equally well suited to delicate painted muslins and piqués as to lama and alpaca dresses.

To Wash Lace.—Cover an ordinary wine-bottle with fine flannel and stitch it firmly round the bottle, tack the outer edge of the lace to the flannel, rolling it smoothly round the bottle,

then tack the inner edge smoothly down, cover over the lace with a piece of very fine flannel or muslin, rub the whole gently with clean suds made of the soap jelly already described (page 125). If the lace is very much discoloured, fill the bottle with hot water, and set it upright in a saucepan of suds, and let it boil for a few minutes, then place the bottle under a running tap to rinse the lace thoroughly; make some Glenfield starch about as thick as arrowroot for an invalid, melt in it a small quantity of best white wax and a little loaf sugar. Plunge the bottle two or three times into this starch, pressing out the superfluous starch with the hand; then dip the bottle into cold water, remove the outer covering from the lace, fill the bottle with very hot water, and set it in the sun to dry the lace. When nearly dry, take it off the bottle carefully, pick it out with the fingers, and lay it in a cool place to dry.

To Wash Flannels or other Woollen Articles.—Have the suds ready prepared by boiling up some good soap in soft water with Manby's washing crystal, but do not use the suds when boiling; let them be as hot as the hand will bear when the articles are put in. The flannels should not be rubbed with soap, nor should the material itself be rubbed, as in washing linen, &c.; the fibres of the wool contain numberless little hooks, which the rubbing knots together; hence the thickening of the fabric and consequent shrinking in its dimensions. Since the articles up and down in plenty of suds, which afterwards squeeze (not wring) out. The clothes-wringers, already spoken of at some length (see page 125), are a great improvement upon hand labour, as, without injury to the fabric, they squeeze out the water so thoroughly that the article dries in considerably less time than it otherwise would do. After rinsing, squeeze out the water, and dry in the open air, if the weather is such as to admit of the articles drying quickly; if not, dry in a warm room, but avoid too close proximity to a fire. Let any dust or mud be beaten out or brushed off prior to washing. All flannels for shirts should be shrunk previously to making up, or they will speedily become too small.

Scotch Method of Washing Woollen Shawls.—Scrape one pound of soap, boil it down in sufficient water. When cooling, beat it with the hand; it will be a sort of jelly. Add three tablespoonfuls of spirit of turpentine, and one of spirit of hartshorn. Wash the articles thoroughly in it, then rinse in cold water until all the soap is taken off, then in salt and water. Fold between two sheets, taking care not to allow two folds of the article washed to lie together. Mangle, and iron with a very cool iron. Shawls done in this way look like new. Only use the salt where there are delicate colours that may strike.

To Wash Wine Decanters.—Soak the decanters for some hours in warm soda and water; if there is much cutting on the outside, a brush will be necessary to remove the dirt and stains from the crevices. Cut a potato into small dice, put a good handful of these into the decanter with some warm water, shake the decanter briskly until the stains disappear, rinse in clean cold water, and let them drain until dry. Vinegar and sauce cruets can be cleaned in the same way.

To Clean Glass Globes.—If the globes are much stained on the outside by smoke, soak them in tolerably hot water with a little washing soda dissolved in it, then put a teaspoonful of powdered ammonia into a pan of lukewarm water, and with a tolerably hard brush wash the globes till the smoke stain disappears; rinse in clean cold water, and let them drain till dry; they will be quite as white and clear as new globes.

How to Clean Burnished Steel Grates.—Use only the finest emery powder (see page 124) and sweet oil on a piece of fine old flannel; rub the grate in always the same direction, not backwards and forwards; and then carefully polish it off with a soft clean wash leather.

Hints on Singing.—Before learning to sing, it will be necessary to decide, first, whether sufficient natural capacity exists; and second, whether the constitution is likely to suffer from the exercises necessary on the part of the aspirant to vocal proficiency. With regard to the first point, the existence or want of a "musical ear" (for all depends on that) may easily be discovered—in the case of an adult by any professional musician, and in the case of childhood even by the ordinary observer. A child who is accustomed to hum snatches of tunes he has heard, or who joins in the hymns of a place of worship, may generally be considered a promising subject for musical training, whether vocal or instrumental; for these involuntary attempts imply the possession, in more or less degree, of the following gifts; a musical ear, natural perception of melody and of rhythm (or time). When to these is added that of a good voice, nothing but proper training is requisite to form a good singer.

Is Singing Injurious?—This is an important question, but it may be answered emphatically in the negative, except in cases where disease of the lungs exists, for then it *is* undoubtedly unsafe, although not to the extent generally supposed. Medical opinion should be sought in case of doubt on this point. Singing should be encouraged from childhood, but any *severe* vocal practice is better deferred until after about the age of sixteen in both sexes, when the voice has thoroughly settled. This rule is, however, open to exceptions, and it applies more to males than females; indeed, during the time when the change takes place in the voices of boys they must entirely cease singing. A severe cold is in all cases a valid reason for avoiding any vocal exertion; but an occasional thickness of voice and phlegm in the throat should not be made an excuse for disobliging the friendly circle, or for shirking duties belonging to members of choirs or musical societies. In our variable climate these slight affections are so prevalent that it may be said that the English always have colds. Singing too soon after a meal should be avoided. An hour should elapse after breakfast and luncheon, and two hours after dinner, before the voice is subjected to exertion. Singers should endeavour to preserve their general health, for on this their success greatly depends.

Choice of a Teacher.—It is of vital importance that the teacher be competent to train the student in the development of good tone in the production of the voice. The best teacher of singing in your neighbourhood should, if possible, be secured. Should the teacher possess the same register of voice as the pupil it will be an additional advantage, but this is not indispensable.

Practice of Singing.—Our greatest professional singers have attained their superiority by the industrious practice of two sorts of exercises, viz., "vocalization" and "*solfeggi*," the development of tone being the object of the former, and of flexibility that of the latter. Their value is not therefore open to question. The pupil should work daily at these exercises, and not waste time on trumpery songs of the popular sort. It must be admitted, however, that teachers are not always sufficiently firm in insisting on the use of such exercises against the opposition of the pupil or the ignorance of the parent on the subject. Hence thousands of pupils learn songs without dreaming that they do not learn singing. Cultivate therefore the voice by the methods we name, and bear in mind that a good voice well trained is a treasure which may be turned into gold. Practise standing before a looking-glass, so as to avoid an unpleasing expression of countenance. Keep the mouth in a natural and rather smiling position. Study to pronounce your words distinctly. Do not carry vocal practice to fatigue. Rest now and then, and take recreation or some other employment. Avoid the use of tobacco, snuff, strong acids, or any of the advertised nostrums for improving (?) the voice.

At the Sea-side.

O TELL me not of workers, pray,
In city-square, or street, or lane,
Who, with industrious hand and brain,
Win life from Fate from day to day!

Though work is noble, *I* prefer
This holiday at least to pass
Idle as winds that bend the grass,
As clouds that float in sunny air.

Far shines the breast of ocean old,
Dark blue where ruffling breezes run;
And in the pathway of the sun
The silver flickers into gold.

On level wings the grey gull wheels;
The white-sailed yacht veers in the wind;
And, with the soft touch of the blind,
The wave along the shingle feels.

O well remembered! All I see
Is mine, if what we love is ours;
Wide ocean, ne'er shall hostile powers
Estrangement bring 'tween thee and me.

Mine is the fuchsia's crimson bell
That hangs above the shoreward ledge;
Mine the blue bugloss in the hedge
That bounds the shore—that skirts the fell.

Up from the west the fishers' boats
Come slowly from the dying day;
While from the throstle on the spray
His even-song in sweetness floats.

Between the hills the rising mist
Is flushed with sunset's loveliest rose;
From purple glens the gloaming grows,
And dyes the sea with amethyst.

D. MURRAY SMITH.

The Month of July.

"Then came hot July, boiling like to fire,
That all his garments he had cast away.
Behind his back a scythe, and by his side,
Under his belt, he bore a sickle circling wide."

SPENSER.

All over the northern hemisphere July is considered to be the warmest month in the year.

Although the sun has apparently begun to return on his southward course, yet the accumulated heat of the preceding month, and the length of time he still appears above the horizon, not only keeps up a high temperature, but increases it, until the gradual shortening of the days becomes quite perceptible, which is seldom before the middle of August. The Romans connected the extreme heat of July, and the consequent malaria fevers produced by the noxious exhalations from the numerous marshes round their city, with the rising and setting of Canicula, the little dog-star, in coincidence with the sun; they therefore gave the name of "dog days" to the days between the 3rd of July and the 11th of August. This name is still commonly applied to these days; and some remnant of the old superstition seems even yet to cling round them, if we may judge by the sapient orders given by local magistrates as to the muzzling of dogs during July and August. In the month of July Summer is in her most perfect beauty. No sign of fading has yet touched the luxuriant foliage of the woods, which are all fragrant with flowers, and carpeted with moss, adorned by graceful ferns. The corn is in full ear, and in sunny spots it is beginning to assume a golden tinge, telling of the rapid approach of harvest. Nothing is more delightful than the smell of the trees and flowers after a heavy shower of rain on the evening of a sultry July day. The birds, but few of whom cease to sing before the end of this month, are hunting about for their evening repast among the myriads of insects who come out when the rain is over; and having fed their

nearly fledged young ones, sing them to sleep with a charming concert. July is a very favourite month with the angler, particularly in the cool of the evening and early morning.

This month is said to have been named after Julius Cæsar, who was born in July. It has thirty-one days, and was called by the Saxons "Hey Monath," being the time of their hay harvest.

Cook's Calendar for July.—Fish in Season.—Salmon, trout, brill, carp, dace, dory, flounders, haddocks, plaice, gurnards, mackerel, herrings, perch, soles, skate, mullet, eels, lobsters, crabs, crayfish, prawns.

Meat in Season.—Beef, mutton, veal, lamb, venison.

Poultry and Game in Season.—Chickens, ducks, fowls, green geese, turkey poults, leverets, pigeons, plover, wheatears, rabbits.

Vegetables in Season.—Peas, beans, asparagus, French beans, lettuces, chervil, salads of all kinds, cauliflowers, cabbages, spinach, sorrel, carrots, cucumbers, mushrooms, turnips, artichokes, endive, radishes.

Vegetables in Season for Pickling.—Cucumbers, gherkins, onions, French beans, early capsicums, red cabbage, cauliflowers, nasturtium berries, garlic.

Fruit in Season.—Strawberries, raspberries, currants (red, black, and white), cherries, apricots, peaches, nectarines, melons, summer apples, Catharine pears, green chisel, jargonelle, and musk pears, early plums, damsons, gooseberries, early pineapples.

Gardener's Calendar for July.—Plant out celery for the autumn and winter crops in trenches a foot deep, and four feet apart from each other; earth up potatoes, and plant kidney potatoes for winter and spring. See that cucumbers and melons are not overcrowded, give air and water; sow peas, lettuce, and various kinds of radishes every three weeks. Also sow turnips after rain, and plant out at the same time brocoli, savoys, Brussels sprouts, and winter cabbages. Prune and tie up dahlias, examine the plants, and only take off the branches that will interfere with those which are showing abundance of flowers. Cut down geraniums, and strike the cuttings in any open border under a hand-glass; treat chrysanthemums in the same way; lay pinks and carnations, and tie up the buds that are advancing to flower; plant out perennials and seedling pansies, pinks, carnations, &c. Make new strawberry beds of the strongest runners. Stone-fruit trees can be budded now, like roses; remove all useless shoots from espaliers and vines, thin the bunches of grapes, and destroy insects; loosen the earth about the roots of fruit-trees. The weather is usually very warm and dry, therefore plentiful waterings are absolutely necessary, even for grass lawns, which may also have a little salt sprinkled over them to destroy worms, moss, &c.

Preserving.—General Remarks.—Fruit is preserved for future use in one of four different modes. The fruit may be preserved whole, in a thick syrup of clarified sugar, or as marmalade, which consists of the outer rind of the fruit cut in slices, and part of the pulp boiled with sugar to a consistence rather thicker than honey. Jam is made by boiling the smaller fruits with an equal weight of sugar; and jelly is made of the juice of the small rich fruits boiled with sugar till the compound is stiff, and ready to turn out of the jar when cold. A preserving-pan is most commonly made of brass, which necessitates the utmost care in using. All acids produce a poisonous effect on brass, therefore the pan must be most carefully scoured with sand and vinegar, then well washed with boiling water, and wiped perfectly dry before it is used. Iron pans lined with white earthenware enamel have lately come into use, and are much safer than brass, but they are heavy to lift. The pan should be set on a stove or on a trivet over a good fire; fruit is always of a better colour when quickly boiled, at the same time that too hot a fire is

likely to burn the preserve. Stir frequently with a wooden spoon, and carefully skim off any scum that may arise. Fruit for preserving should be fully but not over ripe, and freshly gathered; the best fruit and the best sugar will make the best and most economical preserves. Jam should be sufficiently as well as quickly boiled; the time varies for each kind of jam, but a good way of testing if it is cooked enough is to put a little to cool on a plate; when quite cool, if it is stiff enough to remain in a mass on the plate without stirring, it is done enough, and unless the fruit has been very watery the jam will not ferment, but keep well for a couple of years. In a wet season the fruit is more watery than it ought to be, and it is a good plan to put the fruit at first into the preserving-pan without sugar, having first weighed it; let it boil rapidly for ten minutes, to get rid of some of the superabundant moisture by evaporation; then add an equal weight of sugar, and boil in the usual manner. Some jellies should be strained through a flannel jelly-bag, and lightly pressed, but not squeezed through it. For others, the juice must be squeezed from the fruit before putting it on the fire. As jams and jellies are mostly made from the smaller fruit, such as raspberries, strawberries, gooseberries, and currants, all of which are early in coming to perfection, and the mode of treatment of each of these being nearly the same, we shall give our readers a few receipts which may serve as examples for all.

Raspberry Jam.—To every pound of good ripe raspberries picked free from stalks or leaves, weigh one pound of good loaf sugar, broken into pieces as large as an egg; to each pound of sugar add a quarter of a pint of red currant juice; pour the juice over the sugar in a pan and let it stand. Put the raspberries into the preserving-pan and boil them briskly, stirring well for a quarter of an hour; then add the sugar and currant juice. Let all boil for forty minutes, skimming carefully as long as any scum rises; it will be of a brilliant colour, and keep for years.

Strawberry Jam.—Put an equal weight of good ripe scarlet strawberries and broken loaf sugar into a preserving-pan; let them boil very slowly till the sugar is all dissolved. The fruit should be kept as much unbroken as possible, therefore stir very carefully; remove the scum as it rises; the addition of half a pint of white currant juice to every four pounds of fruit is a great improvement, strawberry jam being rather a luscious preserve. Boil from forty minutes to an hour, until the fruit looks clear.

Currant Jam, Red, White, or Black.—Strip the currants from the stalks, and put them into the preserving-pan, with three quarters of a pound of sugar to each pound of fruit; add the sugar after the fruit has boiled a few minutes; boil together, mashing the fruit with a wooden spoon, and taking off all the scum; boil all gently for half an hour, then fill the jars.

Red Gooseberry Jam.—Choose the red hairy gooseberry when quite ripe; cut off the tops and tails, weigh them and put them into a preserving-pan with a quarter of a pint of red currant juice to every three pounds of gooseberries; let them boil quickly together for nearly an hour, stirring carefully all the time. Then add the sugar in the proportion of three quarters of a pound to each pound of fruit, and boil for forty minutes. Gooseberry jam takes a long time to boil; if not well done it will neither look nor keep well.

Green or White Gooseberry Jam.—Weigh equal parts of fruit and sugar, top and tail the fruit, dip each lump of sugar into cold water for a minute, and put it with as much water as it takes up into the preserving-pan; boil it for fifteen minutes, skimming off the scum; then put in the fruit, and boil gently till clear. When a little of the jam will jelly on a plate it is done enough.

Cherry Jam.—Weigh the fruit before it is stoned, and to each pound of fruit allow three quarters of a pound of sugar; stone the cherries and set them with the sugar and a few spoonfuls of water in the preserving-pan, to simmer gently beside the fire for half an hour. Then boil quickly, skimming all the time, for another half-hour. It is recommended to crack the cherry stones and put the kernels into the jam, but as this is both tedious and troublesome, a few drops of ratafia or almond essence will be found quite as good.

Damsons, Orleans, and Magnum Bonum plums are very nice done in the same way as given above for cherries.

Red Currant Jelly. — Pick fine red, very ripe currants from the stems, bruise them and strain the juice from a quart at a time through a thin muslin; wring it gently to get all the liquid; put a pound of white sugar to each pound of juice; stir it over a gentle fire until it is all dissolved. Let it boil for fifteen minutes, and then try it by taking a spoonful into a saucer. When cold, if this is not firm enough, boil it for a few minutes longer. Black currant jelly is made in the same way.

Grape Jelly.—Take some of the best black grapes, strip them from the stalks, stir them with a wooden spoon over a gentle fire till they burst; strain off the juice (without pressing) through a jelly-bag or thick muslin; weigh the juice and boil it rapidly for twenty minutes; then take it from the fire, and to each pound of juice add fourteen ounces of good sugar roughly powdered, and boil quickly for a quarter of an hour, stirring it constantly, and skimming it carefully. It will be quite clear, and of a pale rose colour.

Cherry Jelly.—Pulp fine cherries through a sieve, first taking out the stones and stalks. Add to every three pounds of pulp half a pint of currant juice, and to every pound or pint three quarters of a pound of sugar; mix and boil them together till they form a jelly. Pour it into glasses or jars for keeping.

Apple Jelly. (An American Receipt.)—Take any quantity of sound common apples, those with red skins make the brightest-coloured jelly; wash carefully, but do not peel them; fill a preserving-pan with the apples, and just cover them with water; boil till they are all in a pulp, then strain it through a hair sieve. To every pint of juice add one pound of white sugar, and a little essence of lemon; boil the whole till it is perfectly clear, and jellies when cold; it ought to turn out of a shape quite stiff and clear. The Americans make it of wild crab apples, and the bright red of their skins makes the jelly a most beautiful colour.

To Preserve Fruit in Clarified Syrup.—This is a particularly nice mode of preserving the larger fruits,—peaches, nectarines, apricots, all kinds of plums, apples, and pears, as well as melons, cucumbers, oranges, and lemons. The fruit is preserved whole, and more care is necessary in the operation than is requisite for the making of jams and jellies. The first thing to be done is to prepare—

The Syrup.—To every pint of water add two pounds of loaf sugar, and the white of an egg well beaten; put them into a preserving-pan, but let it stand till all the sugar is dissolved before it is set on the fire. When it boils up, throw in a teacupful of cold water, and do not stir the sugar again. Let it come to a boil a second time, then stand it near the fire to settle, and afterwards skim carefully and set aside for use.

To Preserve Peaches.—Take moderate-sized peaches before they are quite ripe, cut a small slit in the end and take out the stone, set them to boil in cold water, and let them remain till about half done, then throw them into an earthen pan containing cold water. The next day put them into a preserving-pan, with as much of the syrup (prepared as above) as will cover them, let them boil for five minutes, then lay them aside till next day in an earthen-

ware pan; boil them three days successively in the same syrup, which at the end of that time ought to be rather thicker than honey; if it does not appear to be so, boil it until it is thick enough. Apricots and nectarines are done in the same way.

To Preserve the Golden Drop Plum.—Choose the largest of these plums when just ripe, prick the skin all over with a large needle, and put them to boil in as much water as will cover them, till the skin appears ready to break; put the plums then into a preserving-pan, and cover them with the syrup already spoken of, and boil until they look quite clear; they must be kept from breaking as much as possible, and a little ratafia gives them a very pleasant flavour, as indeed it does to every kind of preserve made from stone-fruit.

To Preserve Lemons.—Take four or six fine lemons, cut a hole round the stalk, and with a marrow spoon scoop out the pips and press out the juice, leaving the pulp in the peels. Put them into a bowl with two quarts of spring water, and leave them for three days, changing the water each day. Strain the juice as soon as squeezed out, and put it into a jar, add one pound of loaf sugar, and set the jar in a pan of boiling water for a quarter of an hour or twenty minutes; tie it up, quite hot, with a bladder, and lay by till wanted. Taste the water the lemons are lying in at the end of the third day; if not bitter, lift the lemons out into a china-lined saucepan, pour the water through a strainer upon them, boil gently for one or two hours, and set them by in the pan. Boil them again the next day, until sufficiently tender for the head of a large needle to pierce the rind easily; put in one pound of loaf sugar, make it just boil, and leave it to cool. Next day boil this syrup, and pour it on the lemons; add a pint of the clarified syrup. Lift out the lemons, boil the syrup, and pour it on them again every day for a fortnight, then boil it every three or four days, adding gradually three pounds of sugar, or two pints of clarified syrup. When the lemons look clear and bright, boil the syrup up quickly, add the lemon juice that was prepared and put by in the first instance; let it just boil, skim it, and put the lemons into jars, pour the syrup upon them, and tie up the jars immediately with bladders.

Oranges may be done in the same way, but they do not require to be quite so sweet as lemons.

To Preserve Melons.—Cut a small piece from the stalk end, and take out all the inside; boil the rind in water till it is soft,—it generally takes from half to three quarters of an hour, according to the size; when soft set it on a hair sieve to drain thoroughly from the water, strain as much juice as possible from the inside and seeds, add an equal portion of water, and to every pint of this mixture add one pound of sugar, and also put in the same weight of sugar as the melon itself weighs. This must boil quickly half an hour; then pour it over the melon, and let it stand for twenty-four hours. Repeat this boiling six times, allowing the syrup to lie upon the melon for twenty-four hours between each time; a little essence of Jamaica ginger makes it very pleasant for those who like hot preserves.

To Preserve Green Figs.—Slit them on the top, lay them in pickle (a pint of water to one pound of salt) for ten days; put them into fresh water, and simmer till a little tender; drain, and place them in fresh cold water for four days, changing the water every day; drain them, and put into clarified syrup; simmer for ten minutes, and let them remain in the syrup till the next day; simmer for ten minutes on the two following days, leave them in the syrup, then simmer till they are very tender; leave them another day in the syrup, then boil it up, and pour over the fruit.

All fruits preserved in syrup can easily be converted into candied fruit by simply draining off the syrup, covering the fruit with powdered sugar, and gradually drying in a cool oven,

turning them frequently, and sifting fresh sugar over them every time. They must be kept in a very dry place. They are extremely good, and make a handsome dessert dish.

Fruit Cordials. — Ginger Cordial.—Pick one pound of large white currants from their stalks, lay them in a basin, and strew over them the rind of an orange and a lemon cut very thin, or half a teaspoonful of essence of lemon, and one ounce and a half of the best ground ginger and a quart of good whisky. Let all lie for twenty-four hours. If it tastes strong of the ginger, then strain it; if not, let it lie for twelve hours longer. To every quart of strained juice add one pound of loaf sugar pounded; when the sugar is quite dissolved and the liqueur appears clear, bottle it. This cordial is also extremely good made with raspberries instead of currants.

Noyeau.—Blanch and pound very fine two pounds of the best bitter and half a pound of sweet almonds. Add the thinly pared rinds of two lemons, and three tablespoonfuls of boiled milk which has become cold, put all together into a jar, and add two quarts of old whisky, cork up the jar, and let it stand for six weeks, shaking the jar every day. At the end of that time strain the liquor, and to every quart add three pints of clarified syrup, and filter through blotting-paper. The almonds that are strained from the liquor make a nice flavouring for puddings, by putting them into a wide-mouthed bottle and pouring whisky over them.

Creme d'Orange.—Slice a dozen oranges and pick out the seeds, pour over them three quarts of spirit and a pint of orange flower water; cover them carefully and set aside for ten days, then add five pounds of clarified syrup, a quart of water, and half an ounce of tincture of saffron; cover up again for a fortnight, then strain it through a jelly-bag and let it settle before bottling.

Cherry Brandy.—To every pound of Morello cherries add half a pound of the black cherries bruised and the stones broken, three bruised bitter almonds, one pound of loaf sugar, and a pint and a half of brandy; put all into a jar, let it stand two months, then filter and bottle for use.

The Law of Life and Fire Insurance.—Speculative policies of insurance are illegal. A wife may insure the life of her husband; a husband may insure the life of his wife; a creditor may insure the life of his debtor. The consent of the assured must in each case be obtained. A person about to effect an insurance upon his life must answer the questions proposed to him with accuracy; any false representation makes the policy void. Some insurance companies declare their policies "indisputable," but no contract can be made which is indisputable in law. In the absence of any condition to the contrary, a policy is not vacated by the suicide of the assured in a state of insanity. When a person lends money on the security of a policy of insurance, the lender should have the custody of the policy, and give notice to the insurance office that the loan has been made and the policy assigned.

An insurer against fire must not alter his premises so that they no longer agree with the description of them in the policy; when material alterations are contemplated, notice should be given to the insurers. A fire insurance policy only protects goods so long as they remain in the same house as when the policy was effected. On a change of residence notice should be given to the insurance agent, and the policy will be altered accordingly.

Law of Master and Apprentice.—An indenture may be cancelled by the mutual consent of all the parties to it; it is dissolved by the death of the master or apprentice. When an apprentice is bound to two masters, he becomes servant of the survivor. In the city of London, where apprentices are bound to individual freemen of the city before the Lord

Mayor, the apprentice cannot be handed over to the remaining members of the firm in the event of his master retiring. If the master die his executors are bound to see that the apprentice is taught his business. If an apprentice has absented himself from his master's service, a justice of the peace may order him to serve out the absent time, and, in default, may commit him to prison. The bankruptcy of the master dissolves the apprenticeship. A justice may cancel an indenture on proof of cruelty on the part of the master, or the misbehaviour of the apprentice. A master may be ordered by a justice to refund the premium, or may be imprisoned for neglect of order. Apprentices absenting themselves are liable to imprisonment for the period of three months.

Notes on Angling.—In a former page we offered a few remarks on bait-fishing. We now follow those up with some observations on bait-fishing for trout or salmon, and on fishing with the artificial fly.

The Trout.—This fish is an inhabitant chiefly of rapid streams, although very large and fine trout are to be found even in the more gently flowing rivers, as well as in all our great lakes into which streams and brooks empty themselves. The quality of this fish as an article of food depends not only on the season when it is caught, but on the character of the stream from which it is taken. When out of season the trout is almost unfit for food, and in streams among the hills where the fish are frequently large, but where they have not an adequate supply of food, they are often thin and tasteless. On the other hand, when in season, from June through the summer and autumn months and part of the winter, and when the lake or river affords a proper supply of aliment, the trout is an excellent fish. In some of the Scottish lakes the trout attains to a great size, some being occasionally taken weighing twenty-five pounds, but such large fish are generally coarse and inferior. The finest trout in Great Britain are undoubtedly those of Loch Leven in Scotland. They are perfect in symmetry and beauty of colour. Their flesh is pink like that of the salmon, and possesses a flavour very similar and even more delicate. The best baits for the trout are the worm and the minnow; but although the trout may, under favourable circumstances, be taken with great facility, there are certain conditions of water and weather when the greatest skill and experience are required, and even these may be exercised to very little purpose. Although trout may be taken at any time, there are two conditions of the water exactly opposite to each other in which worm fishing is often successful, viz., in flood after rain, when the water is discoloured, and in the midst of summer when the water is small and clear.

In trout fishing with bait the tackle ought invariably to be fine; no float is necessary; a small shot or two should be placed six or eight inches above the hook, and the worm should be of middling size. Where the stream runs fast, and in eddies by the sides of the rapid currents, such bait and tackle deftly used are often very successful; and when the river is well stocked and in good angling condition, the day somewhat cloudy, and the south or west wind blowing, it will be very much the angler's own fault if he returns from the river side with an empty basket.

The Salmon.—Salmon fishing may be placed at the head of the "gentle craft," and it is in many respects distinct from other modes of angling, not because the salmon is difficult to take, but because the tackle required differs so considerably from what is requisite for other kinds of angling. The rivers in which this noble fish is chiefly found are distant, and altogether salmon fishing cannot be pursued without much trouble, and, in most instances, at considerable expense. The rod necessary for salmon fishing must be from eighteen to twenty feet in length, and furnished with a reel containing at least eighty yards of strong hair line. With such a

line the angler ought to be able to bring a salmon to the bank, but such is its strength and activity that with too small and light a rod the angler, on hooking a large fish in a deep and rapid stream, would lose much valuable time before he could overcome his captive. The best bait for salmon is the worm; in some cases two or three large lobworms are placed on the large hook suited for salmon, and in the deep pools, when the river is in proper order, this kind of bait is readily taken. Salmon roe is the most taking of all baits, but its use has been prohibited for this very reason. The best salmon caught in this country are those of the Severn, Wye, and Dee, in England, the Blackwater and the Bann in Ireland, and the Forth, Tweed, and Tay, in Scotland.

Fly-fishing.—This may be denominated with propriety the true mode of angling, the angling by bait being tame in comparison. Salmon and trout are the great objects of the fly angler's ambition, and our remarks will have reference chiefly to these. Draw out a few yards of line from the reel, dip the top of your end in the water, and give a smart jerk, and you will then be able to unwind at once the length you require. Beware of letting the fish see you; if he does he is off in an instant. In angling for trout, two, three, or even four flies may be used in your casts, but for salmon two only ought to be employed, and these should be well separated. In throwing your cast let the lowest or trail fly alight on the water first, and as lightly as the natural fly would himself do. A fish is far more likely to rise at the instant the fly strikes the water than in trailing it along. As a general rule, fish up the water, especially if the stream is clear, and the wind not directly blowing down. By this mode you are unseen by the fish, as he generally lies with his head looking up stream and he can be landed where you are standing, thus saving you disturbing the river above. Fishing up stream is more difficult than down, but the extra labour required to overcome this will soon be repaid by the larger measure of success attendant on it. Be sure that the gut at the end of your line is round, strong, and, above all, fine in quality. If care is taken that the latter condition is complied with, it greatly enhances your chances of success. As regards the artificial flies to be used, very much depends upon the particular river which you are about to fish in. As a general rule, the woodcock wing with hare's ear, the black hackle, or red hackle, are the best. Where the water is dark and opaque, owing to the nature of the surrounding soil, a small piece of tinsel may be added. Learn to throw your cast not only dexterously over the spot you choose, but as lightly as a feather, and repeat this frequently. It has been often alleged that fish are deaf, but it is certain that they are eagle-sighted; take care, therefore, to keep right out of their sight. Let your end tackle be always in thorough repair, and, above all, show yourself a thorough disciple of good old Izaak Walton, by showing courtesy to your brother anglers, and by ungrudgingly giving them a taking fly if they are in want of one. Such of our readers as desire more minute and detailed information on this delightful art, are referred to Stewart's "Practical Angler," which is one of the best and most practical treatises on this subject we are acquainted with.

Best French Polish.—To one pint of spirits of wine add half an ounce of gum shellac, the same quantity of gum lac, and a quarter of an ounce of gum sandarac; put these ingredients into a stone bottle near a fire, frequently shaking it: when the various gums are dissolved it is fit for use. Make a roller of list, put a little of the polish upon it, and cover the roller with a piece of soft linen rag, lightly touched with cold drawn linseed oil. Rub the wood in a circular direction, a small space at a time, till the pores of the wood are filled up. Then rub in the same manner spirits of wine, with a little of the polish added to it, and a most brilliant surface will be produced.

The Art of Swimming.—The power of plunging into deep water with safety, of diving beneath the surface, or resting motionless upon it, or making progress through the water, and so imitating for a time its finny denizens, who lead a "cold sweet silver life wrapped in round waves," is undoubtedly an accomplishment which has great claims on our attention. As a means of amusement and recreation the art of swimming is of much value; but it is of great importance also as conducing to physical health and vigour, as well as to cheerfulness and exhilaration of mind, and as affording means of safety in many of those contingencies to which even the most cautious are liable. The art, therefore, ought to be cultivated as a part of the physical education of both sexes.

THE SPECIFIC GRAVITY of a substance is its weight compared with an equal bulk of water, and the amount of the specific gravity determines the question whether a substance immersed in water will sink to the bottom or float on the surface, or maintain indifferently some intermediate position between the top and bottom of the water.

THE HUMAN BODY has in all cases a specific gravity less than that of water, and the difference which exists is greater in the case of corpulent people than in those who are thin. This difference also is greater or less according to the quantity of salt held in solution by the water. The human body, therefore, floats higher in sea than in fresh water, and in the strong brine of the Dead Sea it is known to float so readily that drowning is rendered a matter of considerably greater difficulty than can be readily supposed. Notwithstanding these principles, the accuracy of which is undeniable, a person falling into deep water and unable to float or swim is in imminent danger. In his struggles he raises his arms out of the water; their unsupported weight instantly presses the rest of his body below the surface, and the natural law by which he would otherwise float is rendered unavailable. Ability, therefore, to float or swim with safety, is the art of turning to account the natural advantage arising from the difference between the specific gravity of the body and that of the water in which it is immersed.

IN LEARNING THE ART the pupil may have recourse to the swimming bath and the instructions of a teacher, and by this all danger is avoided, and many useful hints obtained without the more laborious and more tedious efforts of undirected experiment. In taking lessons, the swimmer has a belt placed round his chest with a cord attached to it, which either passes through a pulley in the end of a projecting lever capable of moving laterally with the swimmer and supporting him on the surface, or is held by the teacher as he gives directions to his pupil. Half a dozen lessons in the course of a week are generally sufficient to enable the learner to keep his head above water, and make a few strokes without being supported by the cord; and all that he then requires is, by frequent practice, to gain confidence in himself and in the operation of the natural law already adverted to. Without instruction, however, frequent attempts made in water sufficiently shallow to remove all danger, will, in a wonderfully brief period, enable the learner to attain considerable proficiency. In these efforts the learner may substitute for the belt and cord of the swimming bath a set of corks or a swimming belt until he attains to sufficient confidence in his own unassisted powers.

THE USUAL METHOD OF SWIMMING adopted in this country is almost precisely the same as that of the frog, with this exception, that in swimming, the amphibious animal uses for the most part his legs only, placing his arms at full length along his sides, and propelling himself onward by rapid strokes with his webbed feet. In turning in his course, however, the frog uses his hands and arms, as well as his legs, as exactly as possible as his human imitator is under the necessity of doing. In the ordinary mode of swimming, both the hands and arms are reached out to their full length in front of the

swimmer, who, at the instant of stretching them out, strikes the water with both his feet, and as he draws up his feet for another stroke, he gives himself another onward impulse by sweeping his hands round against the water, so as to bring them in the direction of his hips. During this process the body assumes a nearly horizontal position, and although great rapidity is not attainable, the rate of motion is sufficient for all purposes, especially when we keep in view the short space of time during which, in temperate climates, it is possible to endure immersion in cold water with safety and advantage.

Various modes of swimming may be adopted for amusement. The swimmer may turn upon his back, floating just below the surface, striking out with hands, arms, and legs, almost simultaneously sweeping his hands and arms in a semicircle from above his head towards his sides in the manner already described. This mode, as adopted by an expert performer, is frequently more rapid than the ordinary method. The swimmer may also imitate the mode of swimming which the instinct of nature leads the horse, the dog, and other quadrupeds to practise, and which is precisely similar to their mode of walking on land. This method can readily be learnt almost without any instruction, but it has nothing to recommend it except a little novelty. It involves greater exertions than the ordinary method, and is probably a slower means of locomotion. Another method of swimming is the hand over hand style, which is more rapid than the ordinary method, but has the disadvantage of requiring much greater muscular exertion. It is, however, well adapted for short distances, in which swiftness is desirable. In this way of swimming, one arm and shoulder are swung through the air forwards as far as possible, the body is turned partially on the side, and the hand and arm being dropped into the water are swung round towards the side, and at the same time the opposite leg makes a stroke. The same is then repeated with the other arm and leg, the body being at the same time partly turned on the other side as the arm and shoulder are reached forwards, preparatory to the stroke. Floating, diving, and treading the water, are all arts which those who have some practical knowledge of the ordinary method of swimming and supporting themselves on the water can, with a little perseverance, easily acquire.

The Aquarium.—The subject of the aquarium naturally claims our attention after the discussion upon zoophytes with which we have been occupied (see page 119). It is desirable, however, before giving any description of what ought to be the contents of the aquarium, to state to our readers some general principles which it illustrates, and on which, indeed, its successful management entirely depends. The remarks we are about to make refer to the aquarium, whether it contains fresh or salt water.

Before the aquarium came to be understood, those who had acquired a taste for the study of natural history often experienced great regret and disappointment at being unable to keep alive some of the minor aquatic animals with which their studies made them acquainted. To preserve in health and activity a small salt or fresh-water fish or mollusc was found to be impossible without a perpetual renewal of the water; and, as this involved so great an amount of trouble and inconvenience, the attempt was no sooner made than abandoned.

The difficulty, or rather the impossibility thus arising was occasioned by the circumstance that certain chemical processes necessary to the existence of creatures inhabiting the water were not distinctly understood, and had not been developed by the progress of experimental philosophy. It was known, indeed, that fresh air and pure water (whether sea or fresh water) were equally requisite to the health and life of an animal breathing in it, but it was not understood that both water and air are capable of being continually purified

and adapted to the support of life by arrangements efficient and beautiful in the extreme, as all the physical laws obviously are. A living creature, whether inhabiting the fresh or the salt water, requires for its respiration a fit supply of the vital fluid known as oxygen quite as much as an animal living in the air or earth; and if a small creature be placed under a glass, it will speedily drain out all the oxygen. It must inevitably perish unless the air be renewed, or means adopted to restore the oxygen which the act of breathing has drained away. A beautiful provision has been made for this purpose in the laws of nature; terrestrial and aquatic plants are the great means by which the oxygen removed by respiration is restored. In an aquarium properly constructed and tenanted, the adjustment is kept up between the animals and the plants it contains, the latter becoming the source of oxygen as it is absorbed by the former. Without due attention to this great principle neither the fresh-water nor the salt-water aquarium can be maintained.

We shall now briefly point out some practical details as to the construction of the aquarium, and the number, the size, and the character of the animal and vegetable tenants to be contained in it; avoiding minute or elaborate description, leaving our readers to gain additional knowledge on the subject from the most valuable source of all practical knowledge, their own observation and experience.

The Marine Aquarium. — The marine or sea-water aquarium may be said to be an imitation of one of those picturesque rock pools, so many of which along our rocky shore are left by the recess of the tide. These often contain various specimens of seaweeds growing on the sides or the bottom of the pool, and are frequently inhabited by numerous specimens of living creatures, such as periwinkles, whelks, small crabs, shrimps, anemones, and even small fish which, as the tide ebbs, conceal themselves among the sheltering fringes of seaweed which hang from the rocks, and afford them a secure and shady retreat; into which, on the approach of danger, they betake themselves.

The rock pool contains various marine plants, and derives from them a continual supply of the vital oxygen; and, if the water did not evaporate or otherwise drain away, would continue for a very long period to support its living inhabitants in health and activity.

We shall suppose that a suitable vessel is provided, such as a glass tank two feet in length by one in breadth and in height. We state these dimensions merely in illustration, for a much smaller size will be suitable. The tank should be prepared so as to give it some likeness to the bottom of the little rock pond of which we suppose it to be an imitation. To this end let a layer of shingle be first put into the tank, and over this a layer of fine gravel and sand, and here and there a few larger stones of irregular shape to serve as rockwork, some of which ought to rise above the surface of the water. The larger stones should, if possible, be those that have seaweeds of various kinds and in a healthy state attached to them, such as the sea-lettuce, the laver, the carrageen moss, and any small specimens of the olive-brown algæ, or those of a red colour. When the tank is filled with sea water, it should be allowed to settle and become clear for a few days before any of its living inhabitants are introduced into it. The algæ will then be found covered with globules of air, and the water will then be suited to the reception of molluses, crustacea, and fish. By searching among the rocks and seaweed at low water, specimens of Actiniæ will readily be discovered, which can be placed in the tank along with the stone or shell to which they are attached.. Among these some of the most desirable are the various kinds of the *Mesembryanthemum*, of which the red, green, and brown varieties can readily be found on almost any shore. The *Anguicoma*, or serpent-haired ane-

mone, the *Bellis*, or sea-daisy, and the *Gemmacea* will be found well adapted to the purpose, as they are all hardy, and thrive well with ordinary care. A small oyster or two, a few shrimps, and one or two of the smallest of the hermit crabs, together with two or three periwinkles, will be sufficient representatives of the great families of the mollusca and crustaceans. As to the finny tribes, the goby, the blenny, and the rockling are most suitable; and specimens of these can readily be caught with a small net.

Sea-water Aquariums for those living in London.—Do not use the artificial sea water for an aquarium, as its success is always uncertain. Water from the German Ocean can be obtained from Mr. King, 190, Portland road, and other aquarium dealers, at the rate of 6d. a gallon. It is desirable to have the water placed in the aquarium, and also a few stones upon which algæ are growing, for a fortnight before the animals are put in, as when the growth of the vegetable matter is well established, the water will thereby have become prepared for the reception of the mollusca. The stones with the algæ can be sent with the sea-water from Mr. King's, where also all information with regard to the management of the aquarium may be obtained.

Get a small cask of sea-water, and having filled the aquarium sufficiently, mark the height at which the water stands by a small permanent scratch. As the salt does not evaporate, nothing more will be required than to fill up with fresh water occasionally, to keep the water in the tank to the marked level. The cask should be clean. No live stock should be put into the aquarium for a fortnight. A few stones and tenantless shells, on which seaweed is growing, must be placed in the tank. This is of great importance, as the growing seaweed, under the influence of light, supplies oxygen to the water, without which it will speedily become offensive. Carefully remove every portion of seaweed which does not look healthy. It will soon be seen which kinds thrive best under the circumstances in which the aquarium may be placed. The most successful way of standing the aquarium is with its back towards a window; and if it possesses a glass back, which however it does not need, paper should be pasted over it to lessen the lateral or oblique light. There should be plenty of perpendicular light at first to start the seaweed into growth; afterwards it will do better with diminished light. Avoid using any large kinds of seaweed; the smaller the better, as they are less likely to suffer by the change. The rockwork may be made of chips of granite or other stone, and shells, cemented with Portland cement. It is better to avoid chalk for this purpose, even when taken from the sea, as it does not make a permanent structure, and is liable to give the water a milky appearance. A little clean sea sand and some small washed pebbles or clean shells may form the bottom.

The Fresh-water Aquarium.—We have already explained the principle on which the success of the aquarium depends,—a principle applicable alike to fresh and salt water. In both cases, in order to preserve the water in a condition adapted to maintain the lives and the health of the creatures inhabiting it, it must be rendered capable of sustaining life, supplied with oxygen from plants grown in it. This principle alone, if carefully and skilfully attended to, will be sufficient, whatever the size or form of the aquarium, to render it perfectly successful. We assume that our readers have obtained a vessel suited to the purpose, and that it is about eighteen inches in length, about nine inches in depth, and the same in breadth. Let as much sand be procured as will cover the bottom of the vessel to the depth of a couple of inches; let this sand be well washed; place it in the aquarium, plant a few aquatic weeds in the sand, and fill up the aquarium with river water.

As to the plants intended to form the source of the oxygen required, they may be of any kind if they are thoroughly healthy. A ditch where there is a permanent rill of water will yield various aquatic plants; such, for instance, as the "Water-crowfoot," and the "Long-leaved Water-crowfoot," both belonging to the Ranunculus family. The "Water-milfoil," the "Spiked Milfoil," or the "Frogbit," all of which are well adapted to the purpose, and all the more so that the white blossoms which some of these plants bear are themselves an additional ornament in the mimic pond. Added to these may be some of the Floating Meadow-grass, the Water-starwort, and the Duckweed; all of which give efficient help in freshening the water, by yielding a continuous supply of oxygen, and so rendering it habitable by its living tenants. We mention but a few out of the many water-plants likely to attract the attention of our readers during a ramble by the margin of lake or rivulet. If the plants are growing vigorously, and the water of the aquarium perfectly clear, the next step is the introduction of some molluscs, whose principal occupation is that of removing decayed vegetable matter by devouring it. These water-snails may be found in every pond or slowly running water, crawling in the mud, clinging to aquatic plants, or floating on the surface. The *Limnæus auricularius*, a turbinated shell with a large opening not unlike the external ear, as its name implies, and the *Limnæus palustris*, are the names given by naturalists to these molluscs. These and the *Planorbis corneus*, a small mollusc with a shell like a ram's horn, or the volute which architects place at the top of an Ionic column, will suitably represent the great class to which they belong. A young frog and a newt will represent the Amphibia. The Water-boatman, the Water-scorpion, and the great black Water-beetle, called *Hydrophilus piceus*, will represent the innumerable tribes of water and land insects; and two or three sticklebacks, a small golden carp, a juvenile tench, a bullhead, and a loach, will be more than sufficient to represent the finny tribes.

In an aquarium thus constituted and occupied, the water, by the due action of the vegetables growing in it, will remain for a long time fresh and wholesome for its numerous tenants. The molluscs, the insects, the fishes, and other objects, will afford much interesting information, and the proprietor of the aquarium will find that his labour is not thrown away.

Hints on the Harmonium.—This instrument has become a rival to the pianoforte; although it is improbable that any musical instrument will ever supplant the latter in the domain of the household, for which its comprehensive powers render it especially appropriate. While, however, the pianoforte can represent, more or less powerfully, music of *every description*, and is thus entitled to be called "The Universal Compendium of Music," it cannot reproduce the peculiar *timbre* of each orchestral instrument, nor can it emulate in any adequate degree the *sostenuto* effects of the organ and other wind instruments. The invention of the harmonium has brought these effects into the domain of household music, and by its aid we may enjoy the fine movements of the best composers for the organ, and the effects of such orchestral instruments as the horn, flute, piccolo, bassoon, oboe, clarionet, &c., hitherto seldom available.

The harmonium, or *orgue expressif*, is a modification of the old and unpleasant instrument called the seraphine; the coarse tones of which are avoided to a great extent in the modern instrument by certain improvements in its construction. The best makers of harmoniums are Alexandre and Debain, both of Paris; yet we occasionally meet with English instruments quite worthy of comparison with those of French manufacture, and it is but fair to mention that several important improvements to the harmonium are the result of English ingenuity.

Purchasing an Harmonium.—In the choice of this instrument, the uninitiated are quite as likely to be deceived by exterior appearances as in that of the pianoforte. In the first place, the "case" of the harmonium may be of fine wood, brilliantly polished, while its musical properties may be of the poorest description. A large and apparently comprehensive instrument, with many "stops," may in reality be deficient in the contents indicated by these externals; or it may even contain all that is expected, and be worthless from the general inferiority of its mechanism. The value and power of an harmonium depend on the quality of the workmanship, and on the number of sets of "vibrators" which it contains. The latter is always stated by respectable vendors, and can easily be verified by an examination of the interior of the instrument. The stop-knobs which cause these vibrators or reeds to be acted upon may be many or few; they are generally multiplied for commercial reasons, and sometimes to an extent out of all proportion to the number of vibrators. Purchase no instrument whose tone and finish are not of the best; endeavour to get one possessing at least five rows of vibrators (including the *voix céleste*) if possible, but should funds not allow it, be content with a good one of smaller size. Do not look at professedly cheap instruments, for no musical pleasure can be expected from them, however well furnished they may appear to be. They would be dear at any price.

What should an Harmonium cost?—This depends mainly on one thing, viz., the number of vibrators it contains; providing, of course, that the instrument be by a good maker, and of the best workmanship in all cases, for inferior instruments need not be discussed. An harmonium of good finish and well-balanced scale, with *one* row of vibrators and full compass of five octaves, should cost not less than ten or twelve guineas, those having the "percussion action" being more expensive. The next advance we can make is (disregarding the number of stops) to one having one and a half or two rows of vibrators. Such an instrument may cost from about 18 to 32 guineas. One of full size, with four or five rows of vibrators, is recommended, and it would cost from about 35 to 60 guineas, if by one of the best makers, and even cheaper if not one of their best,—for they unfortunately make best and second best, in response to the public demand. "Six guinea harmoniums" should be avoided. They are unworthy of notice; their discordance being unbearable, and they often cause a prejudice against all instruments of the harmonium class. "Portable harmoniums" are often of superior tone and finish, but their contracted size and compass render them useless, except perhaps for amusement on such occasions as boating excursions and country picnics. Harmoniums of a large size, possessing many characteristics of the church organ, with pedals, are constructed, but their high price renders them unadvisable, for it would purchase an organ of considerable size, and, of course, vastly superior powers to the harmonium. Their portability is, however, a great point in their favour. No harmonium or other musical instrument should be selected without the advice of a professor, which can always be secured for a fee, say of a guinea.

Music for the Harmonium, either as a solo instrument or as an accompaniment to the piano and other instruments, is sold by dealers in such instruments. The player of the instrument should endeavour to master, as soon as possible, the use of the "expression stop," which is a great feature in the instrument, and may be acquired by a little perseverance. It will be advisable to have the pianoforte kept invariably in tune with the harmonium, so that duets may be played with these two instruments if desired.

The Wrongs of the Stomach.—High Life below-stairs.—I had been hopelessly given over for many years to respectability, I had been completely lost in upright-

ness; the pleasant sherry cobbler was a thing of the past, I knew the lobster only as a blue-black, unboiled, sprawly monster, the only spirits I indulged in were "rapped" up in mahogany tables; when one evening it befel that I heard a strange dialogue between two individuals not wholly unknown to myself, and named respectively Man and the Stomach. Man accused the Stomach of having done its duty so badly that he was tormented with a burning fire in his extremities, which would neither let him eat, drink, walk, nor rest. The Stomach pleaded justification, and said that she had lighted the said fire as the only means of getting a moment's rest from an intolerable taskmaster. In return the Man complained that he had lost all enjoyment of life, that his spirits were depressed, his mind gloomy, his appetite gone, his once fine, muscular system reduced to flabby indolence; that his food did him more harm than good, so that it had become a misery to eat, and that every meal was followed by a leaden oppression which rendered life an insupportable burden. The Stomach, having listened to all this, delivered in a tone of angry accusation, replied, "My case is just as bad as your own. Before I had well digested your breakfast, you gave me a meat luncheon to see to, and before I had got that out of the way, you thrust a dinner upon me large enough for three stomachs. Not satisfied with that, you wound up the day with a supper, drenching me all the time with ale, wine, spirits, tea, coffee, rum, more wine, and more spirits, till I thought you had taken leave of your senses; and when I heard you groaning in your sleep, starting up every now and then as if apoplexy had broken into the house, and was going to carry you off, I said to myself, 'Serve him right if it did.' And in this way you went on year after year, treating all my remonstrances with contempt. I gave you headache after headache; I tried to recall you to reason with half a dozen attacks of influenza; gave you a bilious fever; made you smart with rheumatism; twinged you with gout till you roared. But all to no purpose. You went on making me digest till the work broke my back, and now I can digest no longer." This reproach was rendered more pathetic by a description of the Stomach watching its hard tasks come down to it from the regions above between dinner and bedtime. First comes a plate of soup and bread, and a glass of sherry. "I can manage that," says the Stomach. Then a plate of fish, with more bread and more sherry; "and that," adds the Stomach, "though these sauces don't quite agree with me." Then comes beef, or mutton, or both, and stout; then game and sherry; then a dish of tart. "Confound this pastry," says the Stomach; "it gives me more trouble than anything else; but if the master will only stop here, I think, if I put out all my powers, I can get even this rubbish out of the way." But she has hardly taken this hopeful view of the case, when down come cheese, celery, apples, oranges, nuts, figs, almonds and raisins, port, sherry, claret, and a tumbler of hot Hollands and water. "Good gracious! was there ever such a mess?" exclaims the Stomach; "what can the man mean? Does he think one pair of hands can manage all this?" Still the willing slave goes to work, when presently there is a rush of hot tea from above, with a thin slice of bread and butter. And when the Stomach with infinite labour has got the hodge-podge into some sort of homogeneous shape, and is preparing to take a nap after her exhaustion, lo! a devilled drumstick rushes into its laboratory, two devilled kidneys, a bottle of stout, and three tumblers of hot brandy and water. "Revenge!" cried the Stomach to the Man. "I will torment you with wild dreams during the long hours of the night; make you tumble down precipices, and hurtle along endless roads, and with the dawning I will light a fire in your throat that water cannot quench."

A Few Words on Candles.—There is hardly any object of a purely domestic nature in which the enormous improvements which science has enabled mankind to effect are more strikingly manifested than in the various modes of obtaining artificial light. Gas perhaps stands first on the list of improvements, not only from the brilliancy and cheapness of the light it affords, but from the many uses to which it is capable of being applied. It is not, however, always possible to have gas, particularly in the country, unless in very large and wealthy establishments, where it is manufactured especially for the use of the household; those therefore of more moderate means must fall back on one of two things,—lamps, in which may be burned either oil or paraffine, or candles.

The burning of oil as a means of procuring light dates back to the earliest ages, as may be seen in the sculptures brought from Nineveh, and the Egyptian hieroglyphics, where figures holding oil lamps are common. Ancient Etruscan lamps for burning oil can be seen in almost any museum. The light given by these must have been faint indeed, for even now, with all the improvements that modern ingenuity has suggested, oil lamps are troublesome and dirty, perpetually getting out of order, and generally having a most unpleasant smell. The mineral oils, under whatever name they may be known, as paraffine, kerosine, naphtha, &c., are all more or less dangerous, and have also a very disagreeable odour.

Some of them are highly explosive, and all are liable to take fire unless most carefully used, and burned without moving the lamp while it is lighted. These oils are distilled from various substances; coal yields them most abundantly, as well as the natural product called in the East Rangoon tar, and in America petroleum. Some experiments on the distillation of these oils revealed the fact that after the oils had been removed there remained a solid transparent substance like camphor, possessing a high power of illumination and without perfume. To this substance the name of paraffine has been given.

One of the earliest and perhaps most curious materials from which paraffine has been produced is peat. About the year 1856 the idea was started of trying to utilize the many thousand acres of peat bogs in Ireland, and some most interesting experiments were carried on by Sir R. Kane and Mr. Reece, who soon discovered that paraffine could be extracted by distillation from peat. Mr. Reece enlisted the Messrs. Field, the wax candle makers of Lambeth, in his undertaking, and they were the first who manufactured candles of paraffine produced from peat. The manufacture soon grew in public favour, Messrs. Field being unremitting in their endeavours to bring it to the utmost perfection, in which they have been eminently successful. Nothing can exceed the elegance and beauty of their white cable pattern paraffine candles, equal in transparency to the finest camphor, and, possessing an illuminating power greater than wax, these candles seem to be everything that can be desired for domestic use. Paraffine or "solidified coal gas" can be tinted of various colours without in the slightest degree losing its transparency. Two or more colours can even be combined in one candle with good effect, and they are quite as beautiful and far less costly than wax candles, which they have indeed almost superseded.

Messrs. Field have patented one important improvement in the manufacture of candles that is equally applicable to all kinds, the cheapest as well as the most expensive—a mode of fitting them into the socket of the candlestick without paring or wrapping the ends in paper. The "Self-fitting Candles" suit any size of candlestick, and are so firm when properly placed, that the many accidents which have occurred from carelessness in fixing the candles steadily in the sockets are now rendered impossible. The candle can also burn to the end without either danger or waste.

The Acrostic.—The acrostic is a species of versification of great antiquity. The term, which is of Greek origin, indicates this peculiarity in the composition, that the first letter of each line taken in the order in which they follow each other, shall constitute some particular word or phrase. In some instances the final and even the middle letters of each line, as well as the initial letters, have been made to spell the desired word or words. In the Hebrew poetry examples of this mode of writing occur; twelve of the psalms of the Old Testament are composed on this plan, and the 119th Psalm is perhaps the most remarkable. It contains a division for each of the twenty-two letters of the Hebrew alphabet, each stanza consists of eight couplets, and the first line of each couplet in the first stanza begins in the original with the first letter of the Hebrew alphabet, "*aleph*," in the second stanza with the second letter of the Hebrew alphabet, "*beth*," and so on. The divisions of the psalm are also named after the letters with which the couplets begin. In miscellaneous poetry numerous examples might be given of this mode of composition. Sir John Davies wrote twenty-four hymns to Astrea, by whom he meant Queen Elizabeth, in each of which the initial letters formed the name and title of her Majesty, "Elizabetha Regina." One of these poetical pieces is the following:—

"E very night from e'en to morn
L ove's chorister amid the thorn
I s now so sweet a singer;
S o sweet as for her song I scorn
A pollo's voice and finger.
B ut nightingales with you delight
E ver to watch the starry night.
T ell all the stars of heaven,
H eaven never had a star so bright
A s now to earth is given.

R oyal Astrea makes our day
E ternal with her beams, nor may
G ross darkness overcome her.
I now perceive why some do write
N o country hath so short a night
A s England hath in summer."

The composition of the acrostic is attended with considerable inconvenience, the writer being fettered not only by the production of rhymes, but by the necessity of commencing each line with a particular letter; and the difficulty is vastly increased when the middle and terminating letters of the lines are likewise employed to spell out the required expression. Skill and experience in the mechanism of versification, united with the enviable possession of taste and genius, will nevertheless do much to overcome these and other impediments to success. For composing an acrostic no elaborate instruction is necessary. It will facilitate the work if, in the first instance, the word or words fixed upon be so written on a sheet of paper, that each successive letter shall be below the letter preceding it, so as to constitute the initial of each successive line. The form of the stanza will depend in a great measure on the author's own choice; but in this respect he must necessarily be governed by the number of lines to be composed, which cannot be more or less than the word or words fixed upon.

Thus, taking as an illustration the title of the present Work, it will be found that the words "BEST OF EVERYTHING" contain sixteen letters. These, written below each other, will be found to originate sixteen lines, which may be written without being separated into stanzas, or at the option of the composer may be divided into two stanzas of eight lines each, or into four verses of four lines each, or they may form eight couplets. The following is an example of one of these methods:—

B y thy hope of growing wiser
E ach Art and Industry to know,
S eek, I pray, a sage adviser
T he "BEST OF EVERYTHING" to show;
O n well-tried precepts by depending,
F rom error thus thy course defending,
E ach work of thine success attending,
V exation shall not reach thee—no!
E ach unwise toiler who refuseth
R ules for due guidance to perpend,
Y ields but to vain conceit, and chooseth
T hose doubtful fruits which pride attend.
H e who is wise no counsel slighting,
I n "BEST OF EVERYTHING" delighting,
N ever shall lack—his footsteps lighting-
"G uide and Philosopher and Friend."

How to Construct a Rockery.—This is one of the most common as well as the most pleasing of garden decorations when properly constructed, and when not introduced in utter defiance of the natural peculiarities of the surrounding landscape. The idea which rock-work as well as water should suggest is that it is natural to the spot, that it has either cropped up from the soil, or that it has been laid bare by some process of excavation which was necessary in the formation of the grounds. Nor ought the materials of which rock-works are formed to be foreign to the geological character of the district. These are general ideas which ought to be present in the mind of every one who attempts to construct a rockery, but in the greater number of works of this kind which we see in the gardens of suburban villas, and in not a few gardens of greater extent and pretensions, these ideas are conspicuous by their absence. The first thing done by the average rock-work maker is to collect a lot of curious rugged weather-beaten or water-worn stones from the sea-shore, or the bed of a river, or from some old ruin that happens to be within easy distance, with a quantity of the slag of glasshouses, or the *scoriæ* from blast-furnaces. Having selected the site for his work of art, which, generally speaking, is the exact centre of his small garden, he proceeds to build up his materials in some more or less grotesque form which has not the remotest resemblance to rock in its natural condition. As a general rule, rock-work is out of place in a garden of such limited dimensions as the great majority of those attached to suburban villas are. In gardens, as in everything else relating to household decoration, all that savours of pretension and ostentation ought to be avoided as violations of correct taste; and the erection of rock-work in a garden the whole extent of which is commanded at one glance savours of pretension. Still there is no reason why rock-work should be entirely excluded from such gardens, if it is constructed with taste, and used as the basis of a display of plants indigenous to rocky *habitats*. The material of which it is formed should be stone in its natural state, and in building up the materials their natural stratification should be imitated as closely as possible. No precise rule can be laid down with regard to the form of the rock-work. That must be left to the fancy of the person who makes it, and so long as the laws of nature and good taste are not violated the form selected is immaterial. The work, however, should be varied in outline, and those cave-like erections which are so common in small gardens ought to be avoided. The smaller the rockery the greater is the taste and judgment required to construct it, so that it shall be an effective, but still not an obtrusive garden ornament. For the construction of a rock-work even of considerable size a great quantity of stone is not necessary. The interior may be composed of earth or rubbish of any kind, the surface only being covered with stone, sufficient interstices being left for planting the various plants by which the rockery should be adorned. When the grounds are large and expense no object, a rockery may be made interesting in a geological as well as an ornamental point of view. Various geological features may be represented in it, so that it would be a sort of outdoor geological museum. We regard it here, however, chiefly as a place for the growth of Alpine plants, and we give a list of these which are best adapted for rock-works of small or moderate dimensions. First of all, taking the plants in their alphabetical order, there is the *Aubretia grandiflora*, one of a rather extensive family which is well worth growing, and remarkably well suited for the embellishment of every kind of rock-work. Of the same plant there are several variegated varieties which are well worth cultivation. *Æthionema cordifolium* is a charming dwarf-spreading Alpine, neat in habit, silvery in foliage, with pretty pink flowers, which it freely produces. *Acæna Novæ Zealandiæ* is a pretty little plant, forming a dense carpet of foliage

with curious crimson spikelets, very singular and very charming. *Antennaria tomentos* and *Adioica rosea* are capital rock plants, the first-named being well adapted for edgings. The *Andiosace* class, of which there are several varieties, are excellent rock-work plants, and the same thing may be said of the *Acantholimon*, the *Alyssum*, and the *Anthyllis*. The *Campanula pulla* is exceedingly pretty, and although the *Calandrinia umbellata* may not be regarded as an Alpine plant in the strict sense of the term, it is a first-rate denizen of the rock-work. The young plants of this variety bloom most freely, and a number of fresh plants should be raised annually from seed. *Dianthus Alpinus* is one of the loveliest Alpines in cultivation, and that and its charming sister, *Dianthus petræus*, ought to have a place in every rock-work. The *Erinus Alpinus* is a capital plant for decorating an old wall. It is an exceedingly free grower, with pretty rose-purple flowers, and sows itself freely. *Gentiana verna*, *Gaultheria procumbens*, *Lithospermum fruticosum*, *Linaria Alpina*, *Mazus pumulus*, *Myosotis rupicola*, *Phlox Nelsonii*, *Primula farinosa*, and the *Nivalis*, *Marginata*, and *Ciliata* varieties of the same plant, are also finely adapted for the rock-work. The *Saponaria ocymoides* is useful in rock-work decoration for hanging over edges. There are at least nine varieties of the *Saxifraga*, five of the *Sedum*, eight of the *Sempervivum*, which are splendid rock-work plants; and when we have mentioned *Silene acaulis* and *Soldanella Alpina*, which has several worthy sisters, the readers of the *Best of Everything* who intend starting a rock-work will have a very good list from which to select their Alpine plants. But no rockery can be considered complete without a small admixture of ferns, whose graceful waving fronds vary the stiff appearance of most rock plants. Many species of ferns grow better in the clefts of rocks and interstices of old walls than in any other place. Whatever is natural is always beautiful, therefore ferns are eminently suitable for rock-work. They thrive well in the same soil and under very much the same treatment as Alpine plants. A few of those that look well on a rockery are *Asplenium trichomanes* (the maiden-hair spleenwort), *Asplenium virides* (green spleenwort), *Asplenium adiantum-nigrum*, *A. ruta-muraria*, *Allosorus crispus*, *Ceterach officinarum*, *Cystopteris montana*, *Polypodium vulgare*, and *P. Robertianum*. Varieties of the *Scolopendrium*, *Lastrea dilatata*, *Polystichum aculeatum;* these are almost sure to do well, and require very little care.

It should be borne in mind in the formation of rock-works that Alpine plants require abundance of soil for their roots to wander in, and that the soil should be a sandy loam, with, for some of the varieties, an admixture of peat. Experience has also shown that very rapid and perfect drainage, combined with an equally copious supply of water in dry weather, are essentials to success in the cultivation of rock-work plants.

To Propagate Plants by Budding.—This operation is most frequently performed by gardeners upon the rose, and it is somewhat difficult to describe intelligibly without the aid of diagrams. It is performed generally in July, the stocks—that is, the plants to be budded upon—being usually the common briar which has been planted in the previous autumn. Strong and well-developed shoots of the variety to be budded from are selected, and the buds, with a portion of the wood attached, removed by means of a budding knife with a sharp blade and flat handle with which to raise the bark of the stock. The portion of the wood cut away with the bark, to which the bud is attached, should be removed before insertion in the stock, but this must be done so as not to injure the root of the bud. Having got the bud, a slit is made longitudinally in the bark of a branch of the stock which is to be budded. The bark is then gently raised by means of the thin flat end of the handle of the budding knife, and the bud inserted in the slit, a portion

of the attached leaf being removed. A little cotton is tied round the bud, and the operation is completed. If it has been performed properly the bud and stock will have become one in about three weeks. It is by this method of budding that the standard roses now so common are produced, the stock being a strong straight briar. Roses require a free use of the knife to keep them in health and order, and the shoots produced from buds should be kept carefully trimmed from the time they first begin to start into growth, or they will become weakly and straggling. The orange and the cactus are propagated by buds as well as the rose, also many kinds of stone-fruit trees.

Archery.—The time has long passed since Robin Hood and his "merry men" pursued their vocation in the forests of Sherwood. The rifle and the bullet, whether in battle or in sylvan sport, have long superseded the more picturesque but far less deadly weapon so skilfully wielded in olden times by the stout yeomen of "merrie England;" and the only bow and arrow which still continue in active and efficient service are those metaphorical weapons carried by the little archer whose exploits form the favourite theme of ancient and modern poetry. The practice of archery, however, has happily not been abandoned. There is a celebrated corps of archers composed of many noble and gallant members who, armed with bow and arrow, form the body-guard of the Sovereign when visiting the ancient palace of Holyrood. There are various archery clubs throughout the country; and archery has assumed a distinguished place among the more peaceful and picturesque of our rural pastimes.

The various articles necessary to the equipment of an archer can be readily obtained from the principal makers in London, Edinburgh, or any other large town, and these it is not requisite for us to describe. In addition to the bow and arrow, a quiver, pouch, and belt are required, as well as an arm guard, shooting gloves, and other things more or less useful or ornamental.

In the practice of archery the following remarks may be found of use:—On stringing the bow the archer should with the right hand take it by the "handle" in the centre, and place that end of the bow to which the string is fixed by the "noose" against the hollow of the inside of the right foot, keeping the "back" or flat side of the bow towards his person. He should then place the heel of his left hand on the upper end of the bow below the eye of the string, and while he pulls the bow towards him with the right hand, he should push it out with the left hand, and as he thus bends it he should slip the string into the "nock" or notch in the upper end. To unstring the bow very much the same process is required as in stringing it; it is to be bent in the same manner; this loosens the string, when the "eye" of the string can be lifted out of the nock with the finger. To preserve the bow from injury it ought to be unstrung after being used; for if laid aside without being freed from a state of tension it is likely to get a cast out of its true shape. After being used it ought also to be dried with care if it has been exposed to damp, put into its case and kept dry, but not near a fire, and it ought to be occasionally well varnished. In drawing the bow the archer should take it by the handle with his left hand, keeping the elbow straight, and having placed the arrow on the string raise both arms, and keeping the left at full length, draw with his right the string of the bow towards his right ear, bringing at the same moment the arrow to a direct line with the object at which he is about to discharge it. In shooting at a target or any other mark, the eye ought to be fixed steadily on the object aimed at, and at the instant when the mark is fairly covered the arrow should be liberated. In taking aim the distance must be, of course, attended to, as well as the force and direction of the wind.

The arrow, in being aimed, must have an elevation above the object at which it is to be discharged, as it will describe a curve in its flight, and this curve will be greater or less according to the distance the missile has to traverse. The wind, even when not strong, exercises some influence, more or less, on the flight of the arrow, and unless the air be perfectly still some allowance must be made for the effect it produces. On this subject theory is of little moment, the archer must gain proficiency at the price which in all practical arts it usually costs, that of observation and experience.

The target is usually a thick mat of straw, circular in shape, and covered with canvas painted in rings of colours, gold being the centre; the next circle is red, then white, then black, next the outer white. These targets are fixed on iron stands, and at distances varying from 60 to 100 yards, according to the rules of the club to which they belong.

The score, which is marked on a scoring card, counts as follows:—

The outer white . . .	1
The black . . .	3
The inner white . . .	6
The red	7
The gold	9

Each club has its own rules, which, however, differ but little from each other, and only in such points as relate to days of meeting, prizes, expenses, &c.

To Manage a Croquet or Archery Party. — Nothing is more easy to arrange than a croquet party, when the circumstances of the hostess are such that she has no more to do than to issue her invitations, and then send for a first-class London purveyor, who makes all the necessary arrangements in the best style. To offer any remarks to such persons would be worse than superfluous, but for the assistance of a lady residing at a long distance from town, having a large family of young people, whom she is anxious to please and amuse without going to any great expense, we may venture to give a few hints how to accomplish this object in a tasteful and effective as well as an inexpensive manner.

We will suppose a croquet party to be given at a country house of moderate pretensions, where there is a ground large enough to admit of two games being played at the same time. Such a residence will probably have a lawn sufficiently large to allow of a marquee or large tent being pitched near enough to the croquet ground to be accessible to the guests, and near the house for the convenience of the servants. In this tent two long narrow tables should be placed, tastefully decorated with flowers, both cut and in pots: on one table may be placed tea, coffee, cakes, biscuits, and plates of thin bread and butter; on the other sandwiches, fruit, ices, sherry, claret, or other light wines, together with abundance of claret and champagne cup, well iced. Small tumblers are the most convenient for taking these cups, and they should be provided in abundance, along with wine-glasses and small plates, and spoons for ices, &c. If there is a verandah to the house refreshments may be served in it as well as in a tent, but they should always be under cover. Nothing is more repulsive when you are lifting your tea or claret cup to your lips than to see an unfortunate fly or gnat in the agonies of death, struggling in the cup or glass, and this is sure to be the case when refreshments are served out of doors and near trees. It is important to have a good supply of seats, not only where the refreshments are served, but near the croquet-ground, that the lookers on, as well as the players who wait their turn, may be able to rest.

The invitations for a croquet party should be similar to those for a dance, substituting the words "croquet and tea" for "dancing," unless it is intended that a dance shall follow, when the fall of evening renders it too late to remain out of doors. The words "dancing at eight," or something similar, are then added. The supper can be prepared whilst the croquet is going on, and the

young people of the party are sure to find it a most agreeable conclusion to the day's amusement.

An archery party requires rather more room than a croquet party; the targets require a considerable space between each, and there cannot be less than four of these at least sixty yards from each other, but usually at a greater distance; in other respects the arrangements may be the same.

The short dresses now so much the fashion are very convenient for croquet playing. For a croquet party clear muslins, looped over coloured silk petticoats, with rosettes of the same colour, are in good taste, as are also the white striped silks over coloured silk; hats of the fashionable shape, to match in colour with the petticoats, are very suitable. For archery a short dress and loose jacket, over which the archery belt is worn, are indispensable; it is essential that the arms be at perfect freedom, to enable the archer to raise and draw the bow. The Tyrolese hats will be found convenient, as the brim being turned up at the sides does not interfere with the drawing of the bow to the right ear. Most archery clubs have a uniform which all the members adopt. Tyrolese or rifle green, with gold or white, is a favourite style; dark green gloves, with stiff gauntlets, are generally worn by lady archers.

Light Drinks for Summer.—Champagne Cup.—To two ounces of powdered loaf sugar put the juice and rind of one lemon pared thin; pour over these a large glass of dry sherry, and let it stand for an hour, then add one bottle of sparkling champagne and one of soda water, a thin slice of fresh cucumber with the rind on, a sprig of borage or balm, and ice with blocks of clear ice.

Champagne Cup, No. 2.—To two ounces of powdered loaf sugar put half a glass of Curaçoa or Maraschino, a slice of cucumber, and a sprig of borage, one bottle of champagne, one of Chablis, and two bottles of Seltzer water; ice with blocks of clear ice.

Moselle Cup.—To two ounces of powered sugar, put the thinly pared rind of a lemon, half a pint of dry sherry, one bottle of Moselle, and one bottle of soda water, and ice.

Sauterne Cup.—To one bottle of German Seltzer water, add two ounces of powdered sugar, a slice of fresh cucumber, and one bottle of Sauterne, and ice.

Beer Cup.—Put a quarter of an ounce of cinnamon, two cloves, one allspice, a little grated nutmeg, and one gill of sherry into a jug; let it stand for two hours, then add two pints of best Burton ale and four bottles of good ginger beer; ice with blocks of clear ice.

American Drinks.—These drinks have become such general favourites in this country since the time they were first introduced, that we make no apology for presenting receipts for a few of the best of them to the readers of "Best of Everything."

Gin Cocktail.—One glass of gin, one teaspoonful of Angostura or Boker's bitters, one teaspoonful of powdered sugar; mix thoroughly by pouring from one tumbler into another; in hot weather a little ice may be added. Brandy or whisky may be used instead of gin if preferred.

Mint Julep.—Put a dozen of the tender tops of mint into a tumbler, pour over them a dessert-spoonful of pounded white sugar, six drops of ratafia, a teaspoonful of raspberry syrup, and a glass of brandy; fill up the tumbler with crushed ice, and drink through a straw.

Gin Sling.—Put six sprigs of fresh mint, half a glass of Curaçoa or Maraschino, and one glass of gin into a tumbler, fill it up with crushed ice, and drink through a straw.

Sherry Cobbler.—Put into a tumbler a glass and a half of sherry, half a glass of Curaçoa, a teaspoonful of raspberry syrup, a few thin slices of orange peel, a teaspoonful of sugar, and fill the tumbler up with planed or crushed ice; a fresh ripe strawberry or raspberry or two, or a slice of fresh pineapple, is a real improvement.

To Fatten Poultry for Table.—The fowls designed for being fattened should be well and liberally fed from the time they are hatched. It is a mistake to imagine that they can be kept low when young, and got up to a great size by liberal feeding when put up to fatten. The fowls so treated are stunted in their growth, the bony framework becomes set, and they never afterwards attain a large size; whereas with liberal feeding they become fit for the fatting-coop at the age of about four months in summer, and from five to six in winter. It cannot be too strongly impressed upon those who are desirous of obtaining poultry of first-rate quality, that fowls are only in perfection for the table before they have attained their complete development. The cockerels should be put up when "their tails begin to turn," namely, just when the two long sickle-feathers or streamers begin to top the straight feathers of the tail; and the pullets before they have laid. They may be either confined within a small space or placed in a coop, in a warm and rather dark situation, and, of course, under cover. The fowls should be separated from each other by partitions in the coop, and no more space ought to be allowed them than is necessary to make them comfortable, without allowing room for exercise.

The fatting-coops should stand on legs to raise them a convenient height from the ground, so that the dung may be removed daily; or each may have a shallow drawer underneath, being daily filled with fresh earth—an admirable plan—the fowls being very fond of nestling in dry earth, and earth being a deodorizer and disinfectant, it is most conducive to their health. The most scrupulous cleanliness must be observed in the case of fattening fowls. The troughs in front of the coop must be removed when the fowls have ceased eating; the remains of food taken out and the troughs scalded and laid in the sun to dry daily. Not a particle of food that has become sour should be given to them; indeed, they will eat better if fresh food, and of a different kind, be given to them at each meal. When first put into the coop they should not have anything placed before them for some hours, till they have recovered from their fright at being caught, and have become accustomed to their new residence. Afterwards they should be fed with much regularity three times each day, giving them at each meal as much as they can eat, but not leaving anything for them to pick up in the intervals.

When first placed in the coop they may be fed twice a day on boiled potatoes, mashed up with coarse oatmeal, and moistened with a little milk. The third meal may be Patna rice, well boiled, with a little milk added. When the fowls are nearly fat the rice may be given twice a day and the potatoes only once; the rice makes the flesh white and clear. A little vegetable, chopped fine, may occasionally be given to vary the character of their food; the earth in the coop will supply the small stones necessary for their digestion. The first meal should be given early in the morning, the second about mid-day, and the last at dusk, when the other fowls are going to roost.

On this system of feeding, a fowl will become perfectly fatted in from a fortnight to three weeks at the outside. When fat it should be immediately killed; for not only is it unprofitable to keep it any longer, but it deteriorates very rapidly, losing weight and becoming hard and coarse in the flesh. Before being killed, the fowls should be kept for fifteen or sixteen hours without food or water. If this precaution is not taken (and it is unfortunately often neglected), the food in the crop and intestines ferments. When this is the case in summer, the fowl in a few hours turns green, and is unfit for table.

The Poultry Plague or Roup.—Few keepers of poultry are unacquainted with this pest of the fowl-house, and many are the recipes prescribed for its cure, but in all cases "prevention is better than cure," and by care and attention to the lodging and feeding of fowls, disease may be

warded off. Keep the fowls free from damp, but let them have any amount of ventilation—that is to say, let the lower part of the fowl-house be free from draught and damp, but let it be open at top for ventilation. And now for the grand desideratum—to keep them healthy and free from vermin. Let the inside of the fowl-house be often lime-washed, and give them any quantity of old mortar or lime rubbish in their houses and in their runs, as they very much like to make a bath of it. Let the food be varied, barley, oats, Indian corn, middlings, and barley meal, mixed thick, and, above all, give them plenty of green food—viz., cabbages, lettuces, clover, grass, &c. The next important thing is, not to keep too many birds in one house or run; far better to keep sixteen birds in two houses or runs—that is, a cock and seven hens in each run—than to have the sixteen in one house and one run. By having two runs you will keep the birds in health, and have many more eggs.

Sometimes, however, the utmost care will not prevent roup from invading the fowl-house. The premonitory symptoms are a sort of hoarseness and catch in the breath; the moment this is apparent separate the victim from its companions; the disease is extremely contagious, and if not at once attended to will depopulate the fowl-house. If the fowl attacked be one intended for fattening kill it at once—it is not worth the trouble and risk to the others of keeping it to cure. Should the fowl be a valuable one, at once give it a tablespoonful of castor oil; keep it in a warm place where no other fowl has access, and a few hours after give one of Bailey's "Roup and Condition Pills," and take the scale off the bird's tongue with the thumb-nail; repeat the pill every morning for a week, giving soft food and chopped vegetables.

A recipe for this disease has lately been published by a surgeon in one of the daily papers, and as this may be new to some of our readers it is here subjoined:—

"Roup—or, more properly speaking, catarrh—destroys thousands of poultry yearly, as breeders and fanciers too frequently and mournfully testify. The disease is terribly contagious, akin to glanders in horses, and generally proves fatal—indeed, has hitherto been considered hopelessly incurable. This, however, by my discovery, is an error, as it can easily be removed if it is treated at the first moment of its outbreak, directly the nostrils discharge or the face exhibits signs of swelling. A grain of ammoniæ sesquicarb. should be inserted in each nostril, and four grains administered as a pill when the fowl is going to roost. By the morning the disease will have vanished. Repeat the dose to prevent a relapse. This remedy is inefficient after the complaint has progressed five or six days, especially if the constitution of the bird has become seriously debilitated.

"When the treatment by ammonia has failed the following may be tried:—

"Keep the fowl-house free from smell, at a moderate temperature; feed with boiled foods; give a pill of guaiacum or cayenne pepper occasionally to aid digestion and restore a little strength; then commence special treatment to relieve congestion and swelling of the head. This is effected by spreading one grain of unguentum antim. pot.-tart. (poison) on a little bread, and giving it on alternate nights as an alterative three or four times; paint the pharyngopalati or gullet cleft with iodine tincture (diluted), force the brush into the slit in the roof of the mouth leading to the nostrils, as also insert a grain of metallic iodine in the external nostrils, and sometimes in the cleft. Repeat the treatment three or four times weekly; but it is judicious to substitute ammonia occasionally, as iodine, if swallowed in excessive doses, produces emaciation and heart disease. This treatment, pursued at the proper stage, acts like a charm."

Simple but Effectual Dyes for Home Use.—Most people look with a sort of horror upon the idea of dyeing any article at home; they anticipate a week, perhaps a fort-

night, of worry, dirt, discomfort, and disappointment; and it must be confessed, that under the old system of dyeing, boiling the article first in one compound, then in another, never making it exactly the colour intended, and seldom making all parts alike, these anticipations were generally realized. Modern science has obviated all these disagreeables. By the means of "Judson's Simple Dyes," a lady can dye small articles in a wash-hand basin almost instantaneously, and without soiling her fingers. Nothing is necessary for this purpose but a sixpenny bottle of the dye, a sufficient quantity of boiling water, and a stick or ivory knitting pin, with which to stir the article to be dyed. Large things can be dyed with equal facility, but it is requisite that the pan in which the dye is mixed should be large enough to admit of the *whole fabric* being immersed at the same time, in order that every part may be exactly of the same tint. The goods intended for dyeing must be perfectly clean and wet. To every teaspoonful of the dye put not less than two quarts of boiling water, unless the shade is to be a dark one. Mix the dye through the water in an earthenware pan, large enough to contain the goods and to allow of their being moved rapidly about in it; put plenty of water; the goods if left long enough in it will absorb all the dye, and leave the water almost colourless. A little starch is an improvement to the goods, and is beneficial in fixing the dye. Woollen things look particularly well after dyeing—the colours are so bright, and they do not come off on the hands as so many other dyes do. Feathers also are most successful, and silk, whether in the piece or ribbons; and the latter have this advantage, that they look like new ribbons, and are not watered in appearance, as ribbons sent to a dyer always are.

Articles dyed should not be squeezed, but let drain till they are dry; small things, such as ribbons, are best dried by rolling them round a bottle filled with hot water, which dries and makes them smooth without ironing.

These remarks are the result of personal experience, as we have both seen and tried these "Simple Dyes," and found them most successful.

Messrs. Judson and Son recommend the use of the various shades of brown and orange for staining wood, and as the carving of wood fretwork is now becoming a favourite occupation amongst ladies, no doubt these dyes will be found exceedingly well suited for staining the white soft woods in imitation of walnut, mahogany, satin-wood, &c.; also for staining croquet balls, which will afterwards bear to be polished. In fact, the uses to which a clever housewife can apply these dyes can only be learned by experience; their cheapness and the simplicity of the mode of using them should encourage every one to experiment with them.

Embroidery, No. 2.—Tapestry, or Berlin wool embroidery, is worked in various stitches on canvas, in imitation of the Gobelin, Beauvais, and Dutch tapestry used by our ancestors for hanging the walls of their castles. Many specimens of this work are still preserved, the best known of which are perhaps those pieces belonging to the English crown, worked from Raphael's cartoons. The canvas used is either plain, and undivided in the threads, or Penelope canvas, in which every two threads are close to each other. For Cross Stitch, Plaited Stitch, Leviathan Stitch, the latter is suitable; for Gobelin and Tent Stitch the plain canvas is necessary. If the article to be worked is a small one, such as a slipper, or mat, or if it is to be worked on coarse canvas, it may be worked without any preparation on the hand; but if a handsome artistic pattern, such as groups of flowers, or a copy of some painting, be the model to be followed, the canvas, which must be fine and even in the texture, requires to be stretched in a frame, care being taken to stretch it as evenly as possible. If the pattern is worked upon a crookedly strained canvas it will never lose a crooked appearance; no amount of pulling after it is finished will make it

straight. The wool for such a piece of work ought to be the best single Berlin wool, used along with floss silk and beads, if suitable to the character of the pattern. Begin in the centre of the piece, with the proper shade; and it is a good plan to work in the darkest colours first, letting the pale, delicate colours and the silk remain till the last, to save them from being exposed to the air and dust longer than is absolutely necessary. Have a sheet of tissue paper ready to be tacked over your work as soon as a portion is completed, and keep the canvas always carefully covered from the dust. Both good taste and some experience are necessary in choosing a Berlin wool pattern, and the materials for working; it is generally the best plan to go to some respectable Berlin wool shop, and leave the attendant to select and match the wools for the pattern chosen; in such establishments they know so well whether the wool will look lighter or darker when worked than it does in the hand (which is very often the case), that the results will be more satisfactory than when the wool is chosen by an inexperienced person. In working, be careful not to draw the wool too tight, thus exposing the threads of the canvas, and work all the stitches the same way from the top downwards, or the work will have an irregular patchy appearance. The commonest stitch in woolwork is CROSS STITCH, which is worked backwards and forwards in rows, taking a stitch over two threads in height, and leaving two threads between the spot where the needle went in for the first stitch and the spot where it goes in for the second. Work first from left to right, and cross it from right to left.

LEVIATHAN STITCH is worked first over four threads in height and four in width, forming a diagonal cross; second, a straight cross is formed over the diagonal one. This stitch is finished at once, each one being worked separately; it is usually worked in fleecy wool, or in double Berlin (but this is expensive), on coarse canvas, and is suitable for footstools, cushions, &c.

TENT STITCH is worked from left to right, over one thread in height and one in width, making the wool to form a stitch just at the spot where one thread of the canvas crosses the other; it is worked on plain canvas, and is suitable for very fine work.

GOBELIN STITCH is very similar in appearance to the tapestry of the same name. It is worked over three threads in height and two threads in width, leaving only one thread between each stitch after the first one. It is worked on plain canvas.

The PLAITED STITCH is worked over four threads in height and four in width, in a similar manner to a herring-bone stitch. These are the principal stitches used in Berlin work, but there are many modifications of each, as well as combinations of different stitches in one pattern, which are frequently very effective, but they require both considerable taste and experience to produce a satisfactory result.

Ulceration of the Mouth.—This frequently takes place in children whose state of health is below par. It is caused chiefly by a disordered state of the stomach, but occasionally the cause is local, viz., the stump or sharp edge of a decayed tooth. The ulcers sometimes appear as little white specks on the tongue and lining membrane of the mouth, constituting the disease called thrush or aphthæ. This form is frequently seen in infants when nursing, and may be transferred from the infant's mouth to the mother's nipple.

When the ulcers are caused by a disordered state of the stomach, two or three tablespoonfuls of the following mixture should be taken every second or third morning:—powdered rhubarb and bicarbonate of soda, of each two drachms; infusion of rhubarb and infusion of gentian, of each four ounces. Mix. When caused by the sharp edge or stump of a tooth, the tooth must be removed or the sharp edge filed away. Children suffering from thrush should be given a nutritious diet with tonics; the tongue and inside of the mouth

should be freely painted over with a gargle, composed of borax, two drachms; and glycerine, one ounce, a camel's-hair pencil being used.

Mumps.—This is a specific contagious inflammatory affection of the salivary glands, especially the largest, situated below the ear. It begins with slight feverish symptoms, with pain and swelling, extending from beneath the ear along the neck to the chin. The attack generally reaches its height in four days and then declines. The treatment is very simple,—a mild diet, gentle laxatives, occasional hot fomentations, and wearing a piece of flannel round the throat.

Quinsy, inflammation of the tonsils, or common inflammatory sore throat commences with a slight feverish attack, with considerable pain and swelling of the tonsils, causing some difficulty in swallowing; as the attack advances these symptoms become more intense, there is headache, thirst, a painful sense of tension, and acute darting pains in the ears. The attack is generally brought on by exposure to cold, and lasts from five to seven days, when it subsides naturally, or an abscess may form in the tonsil and burst, or the tonsil may remain enlarged, the inflammation subsiding.

Treatment.—The patient should remain in a warm room, the diet chiefly milk and good broths, some cooling laxative and diaphoretic medicine may be given; but the greatest relief will be found in the frequent inhalation of the steam of hot water through an inhaler, or in the old-fashioned way through the spout of a teapot.

Gargles are simple remedies well suited to domestic practice in sore throats of various kinds. According to the nature of the ingredients of which they are made, they allay irritation and inflammation, invigorate the membrane lining the mouth and throat, and promote suppuration. The particular purpose for which they are required ought to be kept in view in their preparation.

Gargle for Inflammation of the Throat. — Purified nitre, two drachms; barley water, seven ounces; acetate of honey, seven drachms. Mix the ingredients, to be used frequently.

Gargle for General Domestic Use in Sore Throat.—Three teaspoonfuls of vinegar, two teaspoonfuls of tincture of myrrh, two of honey, a glass of port wine, and three or four wineglasses of warm water; mix all these ingredients, and the gargle is ready for use. A decoction of the leaves of the black currant may, with good effect, be added instead of the warm water. This makes both a pleasant and most useful gargle.

Mucilaginous Gargle for Inflamed Throat.—Tincture of myrrh, three drachms; mucilage of gum-arabic, seven ounces. Mix. This gargle is of use in defending the parts when the saliva is of an acrid character.

Gargle for Threatened Mortification of the Throat.—Tincture of capsicum, six drachms; honey of roses, three drachms; infusion of roses, half a pint. Mix.

Another for the Same.—Tincture of capsicum, six drachms; infusion of Peruvian bark, five ounces; port wine, three ounces. Mix.

Gargle to promote Suppuration. —Barley water and infusion of linseed. This gargle is to be used warm. It must be kept in view that this mild gargle acts by softening the parts of the throat, and hastening the suppuration by its heat, and it is requisite, therefore, that the temperature of the gargle be kept up.

Cookery for Invalids.—Gloucester Jelly.—Dissolve in half a pint of water one ounce of isinglass, adding nutmeg and cinnamon bruised, of each half an ounce; simmer till the isinglass is perfectly dissolved, strain it off, let it jelly, cut the jelly in pieces, add a bottle of old port, and the spice previously boiled in it, sweeten to the taste, simmer till the jelly is again dissolved, when it may be bottled and kept for use. Half a wineglassful may

be taken at bedtime. It is requisite to observe that the wine must not be simmered in a saucepan, but in an earthen jar placed in a saucepan of cold water, and warmed gradually over the fire.

Carrageen, or Irish Moss.—This moss, as it is called, is a species of sea-weed. Wash and carefully pick an ounce of it, boil it in a pint of water for twenty minutes, strain it and put it into a basin to cool and jelly. Mixed with warm milk, it forms an excellent food for children and invalids.

Arrowroot Jelly.—Put half a pint of water, a glass of sherry, a little grated nutmeg and fine sugar, into a saucepan; and when boiling, mix gradually with them a dessertspoonful of arrowroot already rubbed smooth in a tablespoonful of cold water. Boil all together for three minutes, and pour into glasses or small cups. This jelly may be flavoured with the juice of any fruit that is in season, or with orange or lemon juice.

Pork Jelly.—Take a leg of well-fed pork, beat it and break the bone. Set it over a gentle fire in three gallons of water, and simmer down to one gallon, let an ounce of mace and an ounce of nutmeg stew along with it. Strain through a fine sieve, and when cold take off the fat. A cup of it flavoured with salt ought to be taken at morning, noon, and night. It is very good as a restorative for the weak.

Shank Jelly.—Scour and brush very clean twelve shanks of mutton, after soaking them in water for four hours. Simmer them gently for five hours in three quarts of water, putting along with them three blades of mace, an onion, twenty Jamaica and thirty black peppercorns, some sweet herbs, and a crust of bread toasted brown; then strain off the liquor and keep it in a cool place. This is well adapted to delicate and debilitated persons.

Mulled Egg.—Beat the yolk of a fresh egg in a tea or coffee cup, put in a little milk or cream and sugar, and then pour into it as much tea or coffee as will fill the cup, taking care to stir it well at the same time to prevent the egg from curdling. This makes a good breakfast for an invalid. It is light and nourishing without being heating.

Egg Draught.—Beat up the yolk of a fresh-laid egg, and mix it up in a quarter of a pint of warm new milk, grate a little nutmeg into the mixture, and add one spoonful of capillaire and one of rose water.

Drinks for Invalids.—Balm and Mint Tea.—The young shoots ought to be used when possible. Pour boiling water on the leaves and shoots, and cover the infusion and place it for an hour near the fire. The aromatic properties of the plants make this tea a good diluent in cases of fever; and the mint tea will frequently be found of use in allaying nausea and vomiting.

Hyson Tea.—It will be found that a weak infusion of green tea, without either milk or sugar, is a very useful beverage in rheumatism, fevers, and colds.

Toast Water.—Cut a slice off a stale loaf, about twice as thick as toast is usually cut. Toast it carefully until it is deep brown all over, but not blackened or burnt, lay it in the bottom of a jug with a thin slice of lemon-peel, fill the jug with boiling water, and let it stand till cold.

Seidlitz Powders.—Two drachms of Rochelle salts, two scruples of bicarbonate of soda in the blue paper. Thirty grains of tartaric acid in the white paper.

Granulated Effervescent Citrate of Magnesia.—This makes a very simple and agreeable effervescing drink. A teaspoonful of the powder is to be added to a tumbler of spring water, and stirred briskly for two seconds. The citrate can be obtained in bottles at any chemists.

Ginger Beer Powders.—Thirty grains of bicarbonate of soda, three grains of powdered ginger, a quarter of an ounce of powdered white sugar in the blue paper. Twenty-five grains of tartaric acid in the white paper.

Where shall we spend our Holidays?—This is a question that often arises in the family circle, when the increasing heat of summer makes us long for the rustling of green leaves, or the dashing of the cooling waves upon the shore. We will now consider the various merits of a few of the principal English bathing-places, leaving those of Scotland, Wales, and Ireland, for a future occasion.

Beginning at the northern part of the east coast, undoubtedly at the head of the list stands—

Scarborough, the Queen of watering-places, in the East Riding of Yorkshire, on the shore of the German Ocean. The town rises from the shore in the form of an amphitheatre, sheltered on the north and north-east by the Castle rock; it is rather too bleak in spring for delicate visitors, but during the summer and autumn months it is very delightful, the air being extremely pure. The bay is admirably suited for bathing, which, from the sloping nature of the beach, may be obtained at every period of the tide. There is a chalybeate and a saline spring near the town, and patients suffering from nervous affections have been much benefited by using the former, while the saline spring is found efficacious in dyspeptic ailments. Scarborough Castle was erected about 1136. From the Castle esplanade and the South cliff fine sea views are obtained, and the means of recreation are abundant. Considerably to the north-east of Scarborough lies—

Tynemouth.—The climate is the mildest on the east coast, and there is excellent bathing. Within the ruins of the priory, St. Oswald, the first Christian king of Northumberland, Malcolm III. of Scotland, and his son Edward, are interred.

Whitby grandly reposes between two cliffs on the steep sides of the river Esk, a little to the south of Scarborough, and is a most attractive-looking watering-place. The beach is three miles long, is excellently adapted for bathing, and the climate is bracing. There is a geological museum, capital fishing in the Esk, and excellent boating. Jet is found upon the shore. Whitby Abbey, founded by Oswy, king of Northumberland, in 638, is still an interesting object to visitors.

Filey and Bridlington are both small watering-places on the Yorkshire coast. The climate resembles that of Whitby; there is good sea bathing, and both places are interesting to geologists, from the quantity of fossils to be found. At Bridlington there are the ruins of an Augustinian priory. Proceeding southward along the coast we pass Cromer, with its extensive sands, Lowestoft, and Southwold, all little spots where the quietly disposed visitor may find suitable accommodation, and come to—

Aldborough, a pleasant place on the coast of Suffolk; it is nearly a mile in length. All the villas and lodging-houses, including the principal hotel, face the sea. The esplanade which crowns the beach is a very pleasant walk, and the climate is dry and mild during summer and autumn, but the weather is stormy in winter. In the neighbourhood are several objects worthy of a visit, including Framlingham and Orford Castles, and Leiston Abbey. There is also an excellent library and reading-room.

Southend is situate on the coast of Essex, and is distant about forty miles from London. The pier is $1\frac{1}{4}$ miles in length, being the longest in England. There is excellent lodging accommodation.

Passing the mouth of the Thames we next come to—

Margate, on the coast of Kent, a favourite resort of the London citizens. The town is built in handsome parades, squares, and esplanades, and has an excellent pier. The Clifton baths, formed in a cliff, are of especial interest; the sands are smooth and firm, and bathing machines, originally invented here, are abundant. The air is keen and bracing. Margate is chiefly resorted to in August and September.

Ramsgate occupies a pleasant position under the shelter of chalk cliffs, on the coast of Kent. It is very pleasant during the summer months, and the bathing accommodation is excellent. Ramsgate is considered warmer than Margate. The village of Broadstairs is distant from Ramsgate 1½ miles, and is much frequented during the bathing season.

Dover.—The town of Dover is situated on the south-east coast of Kent. On each side of the town are fortified heights. The north cliff is occupied by the castle, the walls of which enclose an area of fifty-five acres. In the castle are preserved the lances of the "six hundred" who made the celebrated charge at Balaklava. In this neighbourhood Julius Cæsar effected his landing on British soil. Dover is considerably frequented during the bathing season, and warm baths may be had on the esplanade. The climate is bracing. There are many pleasant walks, various amusements, and a good concert-room.

Hastings and St. Leonards are on the south coast of Sussex. Hastings is an ancient borough, forming one of the Cinque Ports, while St. Leonards is of modern creation. Both these watering places are sheltered by a series of cliffs. On the west cliff, in the centre of Hastings, stand the ruins of the Castle of Hastings, built by William the Conqueror, who landed at Pevensey Bay, a few miles distant, in September, 1066. Battle Abbey, built by the Conqueror in memory of his conquest, is seven miles from Hastings. The Marine and Grand Parade fronting the sea forms one of the finest promenades in the kingdom. There are well-sheltered spots for bathing, and a mineral spa near the archery grounds. Among the amusements are archery, boating, and cricket. There is considerable variety of climate, the air being somewhat relaxing under the cliffs, and bracing on their summit. Consumptive invalids resort to Hastings and St. Leonards during the winter and spring months, and both places have always a large number of visitors during the summer.

Eastbourne is situated on the coast of Sussex, in a chasm between two cliffs, one of which forms Beachy Head. The lodging accommodation is good, and the sands are dry and extensive. There are chalybeate springs at Holywell, a short distance from the town. Beachy Head commands a most extensive view, and contains a curious cavern known as "Parson Darby's Hole."

Brighton.—This celebrated town, on the coast of Sussex, presents a façade to the sea of about three miles in length. The place in Anglo-Saxon times was called Brighthelmstone. A century ago it contained only 300 persons, these being mostly fishermen; the present population is 90,000. It was from Brighton that Charles II. effected his escape after the Battle of Worcester. In 1782, George, then Prince of Wales, afterwards George IV., commenced to build a marine residence, which was reconstructed in 1817; the Pavilion in its present fantastic form being commenced. Under royal patronage Brighton rapidly increased in extent, and in the number and quality of its visitors. The climate varies in its several localities, but it is well adapted for persons of scrofulous habits and for convalescents. From August to September Brighton is much frequented, but winter is the most fashionable time. There is good bathing, and a number of convenient bathing establishments, and at the pump-room of the German Spa mineral waters, artificially prepared baths can be obtained every morning. There is a genuine mineral spa at Wick, to the west of the town, useful in cases of dyspepsia. The Pavilion, now the property of the Corporation, is open on the payment of sixpence, the flower shows and other exhibitions being held in the Pavilion Gardens. The piers are favourite promenades, and regattas and concerts are frequent. The hotels are very numerous, many of them being elegantly furnished.

Worthing may be called a suburb of Brighton. It is enclosed and sheltered by an amphitheatre of hills. The climate is mild, and during the hot

months of summer somewhat relaxing. In winter, fogs occasionally prevail. The sands are hard and smooth, and the bathing excellent. The neighbourhood of Worthing is celebrated for producing excellent figs.

Southsea is on the coast of Hampshire, close to Portsmouth, and is much resorted to during the latter months of summer. The climate is mild and temperate, and the beach is one of the most inviting on the coast. Visitors should inspect Her Majesty's Dockyard, the Victualling Yard, Haslar Naval Hospital, and H.M.S. *Victory*, in which Lord Nelson fell. There are assembly and reading rooms, and the common is a gay and animated scene during the summer reviews, and cricket matches frequently take place on it. The Isle of Wight is within a few minutes' sail.

Isle of Wight.—The Isle of Wight is separated from the Hampshire coast by the Solent, a channel varying from one to six miles in breadth. The climate is dry and bracing. At Cowes, the chief port of the island, there is an excellent, well-sheltered beach. There are botanical gardens at East Cowes. Osborne House, the marine residence of her Majesty, is situated about two miles distant from East Cowes. The squadron of the Royal Yacht Club is a great attraction at Cowes during the season, which extends from May till November. Ryde is remarkable for its pier, which projects 2,280 feet into the sea. There are many elegant villas and excellent bathing establishments, and the locality is most favourable for invalids.

Sandown and Shanklin, both possessing beautiful sands, are favourite resorts of sea-bathers; and Ventnor, embosomed among clusters of trees, is most picturesquely situated, and excellently adapted as a place of winter residence. In the Isle of Wight are situated the ruins of Carisbrook Castle, where Charles I. was confined in 1647, about a year before his execution.

Bournemouth, Weymouth (the favourite resort of Charlotte, queen of George III.), Sidmouth, Exmouth, Dawlish, and Teignmouth, may all be classed together, being remarkable principally for the mildness of the climate, in which they only differ from each other in degree. The neighbourhood of each of them is very pleasant and well wooded; and evergreens grow (as indeed they do all over the south-west of England) to a great size, and are most luxuriant in their foliage.

Torquay.—This far-famed resort is situated on the south coast of Devon. Built in a series of valleys and hill-sides, there are few regular streets, but the villas are elegant and spacious. The climate of Torquay is admirably adapted for persons afflicted with pulmonary complaints, having cool summers and mild winters, while the place possesses the highest average temperature in England. Fogs are unknown. The bathing accommodation is somewhat limited, but the public baths are excellent. Those who suffer from weak lungs should select "Torquay *within* the hills," which is the lower portion of the place. "Torquay *upon* the hills" is more suitable for ordinary visitors. There are libraries and assembly-rooms, public gardens and beautiful walks and drives within a short distance. The celebrated ossiferous cavern, called Kent's Hole, is in the vicinity, and there is good fishing in the bay.

Penzance, on the coast of Cornwall, has a mild, moist, and equable climate. There are excellent baths of salt and fresh water. The geological museum contains a valuable collection of Cornish and other minerals. St. Michael's Mount, a picturesque rock 250 feet high, is the most conspicuous object in the scenery.

Ilfracombe is situated on the north coast of Devon, near the mouth of the Bristol Channel. Built on a series of irregular hills, the town presents a quaint and singular aspect. The beach is reached by a species of ladder, or by a tunnel under the cliffs, entering from the back of the town. In the neighbourhood of Ilfracombe there are beautiful walks and drives.

Weston-super-Mare, situated at the mouth of the Severn in Somersetshire, is a most delightful marine resort. The air is particularly salubrious; but on account of the mud thrown up by the sea, bathing, except in a few places, is unsatisfactory. There are many interesting drives. Uphill cavern, in the vicinity, has a special interest for geologists.

Clevedon.—A pleasant watering-place in Somersetshire, facing the Severn. The locality is associated with Coleridge, the poet; and Arthur Henry Hallam, the historian. There are beautiful villas embowered in trees, and good bathing accommodation.

Blackpool.—A pleasant sea-bathing place in Lancashire, facing the Irish sea. It is called the Brighton of the north. There is an excellent beach and two handsome piers. September is the fashionable season for Blackpool. The climate is abundantly invigorating. About 8,000 visitors arrive annually. In a house at the west end of Blackpool the Chevalier de St. George remained in concealment while his followers were concerting measures for the insurrection of 1715. Lytham and Southport, in the immediate neighbourhood, are also much frequented during the summer by visitors.

Fleetwood is of recent growth, and is situated on a promontory at the mouth of the Wyre. It is a military station. Between Fleetwood and Belfast a steamer plies daily. The town lies low, but it is well built, and accommodation for visitors is ample and convenient, and the climate is mild.

Uninflammable Muslins.—Tungstate of soda, prepared expressly for rendering fabrics non-inflammable, can be obtained by order of any chemist for about one shilling per pound. Directions for use:—To three parts of dry starch add one part of tungstate of soda, and use the starch in the ordinary way. If the material does not require starching, mix in the proportions of one pound of tungstate of soda to two gallons of water, saturate the fabric well with this solution, and dry it. The heat of the iron in no way affects the non-inflammability.

To Wash White Dogs.—Make a good lather of white soap with a little spirit of turpentine; wash the dog as quickly as possible in this while it is warm, but not *hot*, taking care not to let the soap lather get into its eyes. Have a tub with clean tepid water in which a little blue has been dissolved ready; when the coat is clean dip the dog into the blue water and rinse out the soap. Then rub it well in a clean sheet before a fire; if the hair is long comb it out and brush it as it dries. The turpentine will kill fleas unless the dog is much infested with them, in which case use Naldire's soap tablet for dogs.

To Clean White Jean or Kid Boots.—If you have not boot-trees, stuff the boot as full as possible with common cotton wadding or old rags, to prevent any creases; then mix some pipeclay with water to rather a stiff paste, wash the jean boots with soap and water and a nail-brush, using as little water as possible to get the dirt off. When they look tolerably clean rub the pipeclay with a flannel well over them and hang them to dry. When dry beat out the superfluous clay with the hand and rub them till they look smooth. Flake white may also be used. If the kid boots are not very soiled they may be cleaned in the following manner:—Put half an ounce of hartshorn into a saucer, dip a bit of clean flannel in it and rub it on a piece of white curd soap; rub the boots with this, and as each piece of flannel becomes soiled, take a fresh piece; the boots will look like new.

To Clean Papier-mache.—Wash the article well with cold water and a sponge, dust flour over it while still damp, and rub dry with flannel.

How to Cure a Black Eye.—Moisten with tepid water, and then with a piece of lint apply the pure extract of lead; continue to keep the lint wet with the extract for a couple of hours. Leeches ought not to be used.

The First Harvest Moon.

A GIRL stands at the rustic garden gate,
Behind her rise the ivied vicarage walls,
Before her yellow fields for reapers wait,
Around the evening falls.

She saw the harvest-gold upon the plains,
She felt the sunset tinge her cheek and hair,
She heard the nightingale's impassioned strains,
She breathed rose-scented air.

In all the ample beauty and wealth that filled
The earth and sky, she felt she had no part;
She clasped her breast as if she would have stilled
The hunger of her heart.

She said, "I've watched the fields since the first spear
Of wheat burst through the dank earth of the Spring,
And pined till o'er the young grain I could hear
The lark to his mate sing.

"I watched until among the bursting ears
The breeze-blown poppy made a crimson stain;
My hopes died with the frail flower, and my fears
Rose with the rising grain.

"'When the first harvest moon,' he said, 'shall shine
Above our fields, I'll meet you at this gate,
And hear you tell me then you will be mine,
Or learn at least my fate.'

"And now, O my sick heart! he is not here!
The corn has shaken out its tasselled plume;
The wheat is red—the reapers pain mine ear
With songs borne through the gloom!"

But o'er the woods the year's first harvest moon
Now shows her depths of heaven unseen till now;
A shadow crosses, and her lover soon
Wins the soft spoken vow.

D. MURRAY SMITH.

The Month of August.

"Crowned with the sickle and the wheaten sheaf,
While Autumn, nodding o'er the yellow plain,
Comes jovial on."—THOMSON.

THE name of August was given to the sixth month of the Roman year by the Emperor Augustus, not because he was born in that month, as Julius, his uncle, was in July, but many fortunate circumstances had happened to him in Sextilis, as August had before been called; and he therefore changed that name for an abbreviation of his own, and styled it August. The first day of August was one of the four great pagan festivals, supposed to be a sort of thanksgiving to the gods for the incoming of the harvest. After the introduction of Christianity into Britain, the custom of holding a festival was continued, although the object of adoration was changed, and the offering at church on this day consisted of a loaf. The service at which this loaf was offered was called, in the Saxon, Hlafmass; *i.e.*, bread-mass; and it is not very difficult to trace in that term the word Lammas, now commonly applied to the first of August. The Jews, from the earliest period of their history, were enjoined to keep a feast at the beginning of the harvest, and to offer up the "firstfruits" of their land; and the same custom seems to have prevailed universally.

The days are perceptibly shorter in August, and in the woods we miss the constant song of the birds. Those of them that leave us for sunnier climes are preparing to migrate, and the green young beauty of spring is lost in the golden ripeness of autumn. The apple and pear trees are weighed down with

fruit of the richest hue, and over the thatched roof and whitewashed walls of many an English cottage may be seen the clusters of grapes, just beginning to change colour, delighting the eyes of the cottage children; while on many a sluggish stream and pond in the north and south of our island, where the din of the factory is not heard and the streams are yet unpolluted by dye-stuffs, floats the white water-lily during the daytime, but at night she folds her white petals and sinks to sleep beneath the water, till the rising sun wakes her into life and beauty once more.

The temperature during the month of August is but little less than that of July, and it is perhaps the pleasantest month in the year to spend by the seashore, where the breeze from the water tempers the great heat of the atmosphere.

Cook's Calendar for August.

Fish in Season.—Turbot, brill, dory, skate, soles, flounders, eels, herrings, salmon, trout, mullet, sturgeon, lobsters, crabs, crayfish, prawns, and shrimps.

Meat in Season.—Beef, veal, mutton, lamb, venison.

Poultry in Season.—Chickens, ducks, green geese, turkey poults, pullets.

Game in Season.—Grouse, blackcock, leverets, rabbits, plover, pigeons, wild ducks.

Vegetables in Season. — Peas, beans, artichokes, cabbages, carrots, cauliflowers, salads of various kinds, cresses, mushrooms, celery, turnips, vegetable marrows, kidney beans, onions, radishes.

Fruit in Season.—Peaches, nectarines, grapes, pineapples, melons, currants, gooseberries, raspberries, plums, apples, pears, mulberries, filberts.

Gardener's Calendar for August.—The gardening operations for this month are almost similar to those of July. Continue to plant out brocoli and winter greens, also lettuces to stand through the winter; sow after rain turnips, spinach, and cabbage seeds; earth up celery and beans, and begin to gather in seeds as they ripen, and to dry sweet herbs for winter use. Early onions will be ready for pulling, and should be dried in the sun before being stored for winter. Cut off all runners from the strawberry plants, and plant out the strongest of them to form new beds. Prune vines and thin out the bunches of grapes, and watch all wall-fruit trees to destroy the insects, snails, &c.

Carefully examine the roses that were budded in July; take off the ties and cut off all shoots from the stock to strengthen the new buds; propagate fuchsias, petunias, and verbenas, by cuttings, and all kinds of perennials by dividing the roots; trim and tie up dahlias and chrysanthemums; carnations and picotees should be layered as soon as possible, or they will be too late; plant out the pipings of pinks that have struck; repot pelargoniums and auriculas; transplant seedling biennials and perennials, and generally prepare plants for spring blossoming next year. Water freely and mow the lawns frequently, rolling them well after rain or copious waterings.

Hints on Preserving, No. 2.—Orange Marmalade.—Cut some sound Seville oranges in four, take out the pulp and put it in a basin, put the peels to soak in cold salt and water for twenty-four hours; pick out all the seeds and thin skin from the pulp; next day boil the peels in a quantity of spring water till they are so tender that the head of a pin will pierce them, then draw off the water, and cut the peels into the thinnest possible slices; add them to the pulp, and to every pound weight put a pound and a half of loaf sugar broken small; boil all together gently for an hour till the peels look quite clear; stir it quietly all the time. Some receipts recommend that the juice of two lemons should be added to every dozen of oranges, but if the oranges are good they will be quite sufficiently juicy themselves.

and have a finer flavour than lemon-juice.

Gooseberry Marmalade. — Take the gooseberries when fully grown, but not ripe, boil them in water five minutes, then drain them through a colander, bruise the fruit, add an equal quantity of loaf sugar, and to every three pounds of sugar put the rind of a lemon grated and half the juice; it should be boiled until stiff.

Red Currant Marmalade. — Squeeze some ripe red currants through a coarse muslin; to every pint of juice put a pound of loaf sugar; boil it very well; when nearly boiled to a jelly, have some bunches of large white currants nicely picked, throw them in, and boil five minutes; it should turn out stiff and transparent.

Apricot Marmalade.—Take off the peel of some large ripe apricots, cut them in two, and remove the stones; weigh the fruit and lay it on dishes; to every pound of apricots put one pound of finely powdered loaf sugar, strew it over the fruit, and let it lie for one night: next day put the fruit and sugar into a preserving-pan with a teaspoonful of ratafia to every pound of sugar; let the whole boil very gently, and as each piece of apricot appears clear take it out and lay it in a jar; skim off any scum that may arise on the syrup, and when all the fruit is done pour the syrup over it in the jars.

Quince Marmalade.—Half fill a preserving-pan with water, slice your quinces into it, and stew, stirring occasionally till they are a pulp; strain it through a hair sieve, and to every pint of pulp add three quarters of a pound of loaf sugar pounded; boil together till it jellies; put it into jars while hot. If well made it will keep many years in a dry place.

Apple Cheese. — Boil some large green baking apples in a quantity of water until the skin begins to crack, then drain off the water, and let the apples cool; when cold take off the skin and rub the pulp from the core; blend it smooth, and to every pound of pulp add a pound of white sugar, the rind of a lemon grated, and half the juice; boil all together till the fruit looks clear; put it into china shapes; it will turn out quite stiff, and makes a nice supper dish; if intended to be kept for some time cover close like jam.

Plum or Damson Cheese.—Put a quantity of plums into a jar, and stand the jar in a saucepan of water on the fire; when quite soft pulp them through a sieve, and to every pound of pulp, add one pound of loaf sugar, and one ounce of sweet almonds, blanched and pounded, with four bitter almonds; boil all together till the fruit will form a stiff jelly. If the plums are very juicy, some of the juice may be taken off the fruit.

To raise Plants by Cuttings. — The propagation of plants by cuttings is a simple and easy operation, when the operator has to deal with free growing hardy shrubs, or with the rank and file of herbaceous plants used in the decoration of the flower-garden. The preparation of cuttings is guided by the fact that what may be called the root-producing property of a portion of a plant shoot resides chiefly, and in most cases entirely, at the joints where leaves or buds already exist. Accordingly, cuttings are always cut across with the soundest and smoothest section possible, just below the base of a joint of a shoot which is partially ripened in the case of shrubs, and well formed in the case of herbaceous plants. In the case of hard-wooded plants the cuttings usually must be inserted in pots or boxes filled with fine sand, without any taint of iron, or sand and soil, the bottom of the pots or boxes being covered to the depth of from two to three inches, according to their size, with broken pot shreds, over which there should be placed a layer of moss. The cuttings should be dibbled into the sand with a piece of wood shaped at one end to a round and bluntish point, and after insertion they should be watered overhead with a fine rose, so as to fairly settle them in the sand or soil. Light should be partially excluded

from them for a few days, and when they have begun to strike, great attention must be paid in supplying them judiciously with air and moisture. Scarlet geraniums are readily propagated in the open border in summer; and the best method for the propagation of the bedding-out varieties of the calceolarias is to dibble the cuttings after preparation as above, about the middle of October, into a compost of nearly equal parts of sand, leaf mould, and soil, in a cool frame, keeping the lights on and shading from the sun until the cuttings have taken root firmly. After this air and light may be freely admitted, but care must be taken to keep out frost and damp. Verbenas may be propagated in the same manner in the autumn, but when the propagation is deferred till spring, the pots or pans in which the cuttings are placed must be plunged in bottom heat till they take root. The same rule applies in reference to the spring propagation of most of the denizens of the flower-garden.

To raise Plants by Layers.—This is a mode of propagation indicated by Nature herself. The roots in *natural layers* are produced by the stimulus of the moist earth on which, from the nature of the tree or plant, the shoots recline. In laying trees and shrubs the operation is either performed before the ascent of the sap or when the sap is fully up; hence the seasons for the operation are in winter, early spring, or at midsummer. The following is the mode of performing the operation:—The shoot or extremity of the shoot intended to be converted into a new and independent plant is half separated from the parent, the half-severed portion of the shoot being placed in the soil, and kept in its position by a peg; provision is thus made for the ascent of the sap at its recurring period, while the portion of the stem which is cut through and separated forms a dam or sluice to the descending sap, which, being interrupted in its progress, exudes at the wound in the form of a granulous protuberance, which ultimately throws out roots. This is the simplest and most effective method of propagating plants by layer, and it may be successfully performed by any one with care.

Window Gardening.—There is an art in window gardening as in everything else, but it is not very difficult to acquire, the basis of it, as in the case of most arts of an industrial character, being common sense. The first thing, of course, is to construct the garden, which should be a box made to fit the window in which the plants are to be grown. As this is the substitute for the garden bed, it ought to be deep enough to hold a fair quantity of mould, and wide enough to contain at least two rows of plants. The box may be a little wider than the window-sill if care is taken to fasten it properly to the window with brackets; and the box may either be painted, or the front of it covered with Minton's tiles, which are comparatively inexpensive, and have a neat appearance. The advantage of a box for window gardening over pots is obvious. In the latter the roots of the plants are apt to get scorched by the hot summer's sun, to the great and frequently fatal detriment of the plants; but by the use of the box this danger to plant existence is obviated, and, by proper attention to watering, the foliage of the plants cultivated may be kept as fresh and green as that of plants grown in the most carefully tended flower-garden. The soil should be a fibrey loam, with a small quantity of thoroughly decayed manure and bone dust. The bottom of the box should be pierced with holes, and before the soil is placed in it, an inch and a half of broken pot shreds should be spread over the bottom to facilitate the drainage of the superincumbent soil. By means of a properly constructed box a window may be kept gay from an early period of spring till late in the autumn. For spring decoration the best plants are dwarf German wallflower, which may be used so as to form a background; while the candytuft (white), the alyssum (yellow), and a few anemones would do for a second row, the third and outer

low being composed of the *Aubrietia Campbelli*, with a few scillas, snowdrops, and crocuses of various colours. A few hyacinths might also be introduced in the centre of the box with very good effect. When the spring plants have done flowering, they should be removed and planted in a shady part of the garden for use next year. The soil in the box has to be renewed for its summer tenants. These may be yellow calceolarias, blue lobelias, verbenas, scarlet geraniums, while at the ends of the box climbing plants may be planted and trained up the sides of the windows on wires fixed for the purpose. A box properly planted and carefully attended to with water may be made a thing of beauty, and a joy, if not for ever, at least during the summer months, while it will give an air of elegance and refinement to the humblest cottage, which will more than repay the labour and cost incurred in procuring and keeping it in proper order.

The Lawn.—A fine sward of grass is always a pleasing object, however small it may be; and since the introduction of croquet, a lawn of some dimensions is indispensable to every ordinarily well-appointed household. In the formation of the lawn the first requisite is a good surface soil; stiff clay or hilly and heathy ground will never produce good and verdant turf. From eight to sixteen inches of good loam or fine light mould, according to the nature of the subsoil, will, generally speaking, be sufficient basis for the production of a substantial and satisfactory turf. The selection of grass seeds for sowing is a point of at least equal importance to the selection of soil, and the following will be found to be the best:—*Cynosurus cristatus*, *Festuca tenuifolia*, *Poa trivialis*, *Poa nemoralis*, *Poa sempervirens*, *Lolium perenne tenue*. This mixture will give satisfaction, and with proper care a fine lawn may be produced in two years.

In lawn management all that is required is careful and frequent watering in dry weather, together with constant mowing and rolling. Many excellent lawn mowers have been invented, all of which are wonderful improvements on the old scythe. Some of these cut, roll, and sweep up the grass at the same time; and for croquet grounds and bowling-greens these are unrivalled. Where the object is to produce and keep a rich, green, soft sward,

The "Archimedean," an American lawn mower, is most highly recommended by the *Field*, *Gardener's Chronicle*, and other authorities on these subjects. It will cut the grass whether short or long, wet or dry; and after cutting it up into little pieces, it scatters it all over the ground, thus protecting the roots of the grass and acting as a fertilizer. This machine has been tried on the lawns of the Horticultural Gardens at Chiswick, and is favourably mentioned in the society's reports.

The Game of Quoits.—The implements necessary for this game do not require any elaborate description; they are quoits, and pins called hobs. The quoit is a flat ring of iron, thin at the circumference, and increasing in thickness towards the centre. The diameter of the ring is about six inches; it is about an inch and a half in breadth all round from its outer circumference towards the centre, and about three more inches of the diameter are occupied by the central part of the quoit. The pin or "hob" is merely an iron pin which can be readily driven into the ground. In order to play the game two hobs are driven into the ground opposite to each other, and at a distance of from fifteen to thirty yards asunder; the players are two or more in number; if they are more than three they are arranged in sides as in other games. Each player has two quoits and throws one of them in his turn, his object being to cause his quoit to fall over the hob, or as near to it as possible. The quoit to be thrown is held with the forefinger along its outer edge, and the upper and the lower surface between the thumb and the other fingers; in throwing it towards the pin or hob a slight rotary motion is imparted to it, which increases the facility of throwing

it to the mark. The score depends in the quoit falling on the pin, or on its distance from it; those nearest to the pin counting one for each side. After all the quoits are played from one side of the ground the players cross to the hob towards which they at first played, and continue the game by throwing the quoits towards the second hob placed in the ground, at the point at which they originally began.

The Game of Bowls.—This game, which is sufficiently simple, and well adapted to those to whom violent exercise is unsuitable, is played with bowls on a perfectly level and well-kept plot of greensward called a bowling-green, thirty, forty, or fifty yards square. To play the game a white ball is rolled towards the opposite end of the green, and towards this ball the players throw their bowls in turn, and when all have played, each of the bowls nearest to the white ball scores one. The game requires considerable skill, and possesses no small degree of interest. The bowls, which are several inches in diameter, are made of *lignum vitæ*, a very hard and heavy species of wood. Each ball is turned on the lathe in such a manner that the "centre of gravity" shall not be in the centre of the sphere, but towards one side of it. This peculiarity giving to the bowl a "bias," prevents it from rolling in a straight line after leaving the player's hand, and causes it to describe more or less of a curve as it proceeds towards the mark. This "bias" renders experience requisite, and constitutes the chief difficulty in the game, as the player must be able to calculate the course his bowl will take and the point at which it will arrive on completing it. The game is well suited for a summer evening.

Cows — their Feeding and Treatment.—We commence our observations by stating, as a general rule, that cows of the short-horn breed and the hornless cows afford milk of the best quality, and are less troublesome to the milker; that those which yield the greatest quantity of milk are the large breeds of Lancashire, Yorkshire, and Staffordshire; but that these animals require much food, and would, in fact, starve on land where the smaller breeds, such as the Scotch or Welsh cows, would find an abundant supply. The Suffolk duns and the Ayrshire cows, which are both small breeds, unite in a very useful degree both quantity and quality of milk. The Devonshire and the Welsh cows thrive well under ordinary keep, and are sufficiently hardy to stand the winter season without damage.

The cow may be allowed to graze upon the grass in the open fields, or fed with green food cut and carried to her in the cowhouse, or stall-fed; that is to say, fed with hay and succulent roots, either raw or steamed. There can be no doubt that by far the best of these methods is that of grazing. It is obvious that it contributes in no small degree to the health of the animals; they obtain exercise, which is highly important; they breathe fresh air; they drink water perfectly pure and soft; and they obtain grass perfectly fresh, and altogether more acceptable to them than that which is brought from the fields. It is likewise certain that the milk of cows which graze in the open air having abundant pasturage, is larger in quantity and better in quality, and that the flavour of the butter produced from such milk is superior to that derived from the milk of cows confined to the house, deprived of the advantages of fresh air, fresh pasturage, and suitable exercise, and rendered thereby perhaps feverish and irritable.

Grazing land, however, cannot always be had; and if a cow must be kept it can only be within doors, although it cannot be expected to thrive as well as if permitted to range the fields and collect its own provender. In a very great many instances no other method can be adopted in keeping a cow than that of confining her to the cowhouse. The plan has been largely practised in the neighbourhood of great cities, and in many parts of the Continent it is uni-

versally adopted. It is necessary, moreover, in a number of instances, on the score of economy, much grass being injured by the animals being allowed to range over it unrestrained, and much valuable manure wasted which would be more productive if collected in the stables and applied to the land. A much less extent of land is required to keep a cow when she is confined to the house than is requisite if she is allowed to pasture on it. Perhaps little more than half an acre will produce sufficient grass when it is cut and carried into the house to keep a cow almost the whole year, whereas so small an extent of land would be quite inadequate if the grass were trodden down and otherwise damaged.

The sort of food given to the cow confined to the house consists of cut grasses, natural or artificial, such as lucerne, clover, and vetches, hay and straw, which all ought to be of the best quality. Fresh grains from breweries are much used in some places where they can be easily procured; but although they occasion a large flow of milk, it is generally of a poor kind. Garden stuffs are likewise applicable to the purpose, such as spare vegetables; roots of all sorts, such as carrots, parsnips, mangel-wurzel, and potatoes. Turnips are likewise useful, but when too liberally supplied they impart a disagreeable flavour both to the milk and butter. Oatmeal, peasemeal, linseed, and bran, are all said to improve the quality of the milk. Vegetable substances are understood to be better adapted to the feeding of cattle by being subjected to the process of boiling, which renders their nutritive properties more available; and this plan of preparing food for cows is largely followed in some places, and with advantage.

The best times for feeding the cow are early in the morning, at noon, and a little before sunset. Abundance of the purest water must always be supplied, and it ought in all cases, where practicable, to be what is understood as soft water. In winter the water given should be warmed to the temperature of the air on a summer day.

Cows should be carefully treated. If their teats are tender or sore they should be gently washed with warm water twice a day, and either dressed with soft ointment or with spirits and water. An ointment made with glycerine would, beyond doubt, be of great use on account of its healing properties.

The Dairy.—General Observations. — The management of the dairy ought to be given to one person, whose special business it should be to exercise the utmost care and attention to all its various details.

The utensils should be made of wood, wherever practicable; the cream-dishes not more than about three inches in depth, and capable of holding from four to six quarts of milk. They ought to be well washed every day in warm water, and then carefully rinsed in cold water, and be quite cool before they are used. If metallic vessels of any description be employed they must be scalded every day, and well scrubbed and scoured; and the process of scalding the vessels should be carried on not in the dairy where the milk is kept, but in some other place; as the heat arising from the water employed for the purpose is apt to produce a tendency to sourness in the milk itself. In a word, the art of keeping the dairy cool as well as clean is one of the utmost importance, and should receive the greatest attention from the dairymaid.

The freshness of the air in the dairy, and its equability in temperature are of essential importance at all seasons of the year. Glazed windows are inferior to those made with sliding lattices, these being better adapted than the others to afford a free ventilation. In cold weather and in winter they may be furnished with oiled paper instead of glass panes, and the lattices may be so constructed as to be closed or opened as may be required.

Cleanliness is in the highest degree indispensable; the success of all dairy processes depends upon it. All the utensils, the dressers, shelves, walls, and

floor, should be kept most scrupulously neat and clean, and when the weather is warm ought to be frequently washed and sluiced with cold water. Everything likely to produce acidity must be carefully excluded. No meat should be hung up in the same place with the milk, and neither cheese nor rennet nor the remains of sour milk should be left in it.

Milking. — Cows are usually milked at stated intervals twice in twenty-four hours, and in some districts thrice. Whatever the practice may be, it is important that the time of milking should be as regular as possible. The operation of milking is usually performed by women, but in some parts of the country men are employed for the purpose. The milker ought to be of a mild disposition and good temper, so as not to exercise any petulance or harshness towards the animals, which, besides being cruel, sometimes causes the cow to exercise her faculty of withholding her milk. Care should be taken by the milker to draw off the whole of the milk contained in the udder, for if this be not done the quantity of milk produced will be gradually diminished till none whatever is given.

Quantity of Milk.—This is determined by various causes, such as the breed of the cow, the time of year, the character of the pastures, &c. In some districts large cows yield from eight to twelve quarts a day, and some for short periods give even twice that quantity.

Treatment of the Milk.—When it is taken from the cow it should be carried to the dairy gently and with as little shaking as possible, strained through the sieve, and put into the coolers to allow the cream to rise, which it will do in six or eight hours. The milk pans ought to be as nearly as possible of the temperature of the milk, and in winter, therefore, they ought to be scalded with hot water, or placed in front of the fire before the milk is poured into them.

Cream.—When milk is suffered to remain at rest it separates into two parts, one of which rises to the surface, where it forms a layer of a yellowish white fluid, of a peculiarly rich taste. It consists of a peculiar oil, curds, and serum, or whey. The oil it contains is the well-known substance named butter, which can be separated from the cream in a more solid form by agitation or churning.

Skimmed milk is the milk which is left after the removal of the cream. It forms an excellent article of food.

Butter.—This substance is the oil of the milk, separated from it by churning; but it differs from animal fats, strictly so called, as containing, in addition to the substances known to chemists as oleine and stearine, another substance, to which has been given the name of butyrine or butyric acid, and to which the peculiar flavour of butter is due.

The Manufacture of Butter.—Two methods are adopted in making butter. In the one the cream is separated from the milk and converted into butter by churning; in the other method the whole of the milk, including the cream it contains, is subjected to the process of being churned. The first method, it is said, produces the richest butter; the second, the greatest quantity. Butter is made from the cream and milk when allowed to become a little sour, an acid appearing to be essential to the due preparation. Very rich butter is made by using only the latter half of the milking, as it is ascertained that the first portion of the milk taken from the cow is considerably less rich than the latter. The yellowish hue of the butter is often partly artificial, for in winter the colour of the butter is often whitish, and in order to assimilate it to the rich hue it acquires in summer when the cows are fed on grass, some colouring matter is employed, such as a little arnatto, or the juice of carrots or marigold flowers.

Taste of Butter.—This is unlike that of any other fatty substance, and is extremely agreeable when of the best quality, but its flavour depends much on the food given to the cows. If the butter is likely to taste of turnips, the

following plan will prevent it:—When the milk is brought into the dairy, to every two gallons of it add a quart of boiling water; then put up the milk thus well mixed into clean and fresh scalded bowls or pans to stand for cream. By adhering strictly to this method sweet and well-tasted butter may be made during winter free from the milk of cows fed on turnips.

Management of Butter when made.—On this the quality of the butter very much depends. It must be pressed and worked, so as to get out of it the whole of the buttermilk, which, if it be not all removed, will cause the butter to spoil in a very short time; and on the other hand, if it be too much worked, it will become tough and gluey. Butter is apt to become rancid; it cannot be exposed to the air for many days and be preserved free from rancidity without the addition of salt, but it is ascertained that the more the buttermilk has been extracted the longer the butter will keep. The tendency to rancidity, however, is checked if a small quantity of salt be put into the butter as soon as it is made. This is done in many parts of England, and the process causes what is known as fresh butter to resemble very nearly the finer qualities of what is called salt butter; in many parts of Scotland, on the other hand, what is called fresh butter contains no salt whatever, but is brought to table as it is made.

Varieties of Butter.—What is called Epping butter was once much esteemed in London, from the circumstance that very fine butter was formerly made from the milk of cows fed during the summer in Epping Forest. The name, however, is applied to butter made elsewhere, and has come to indicate quality instead of the locality where it is manufactured. Large quantities of very excellent butter are furnished by the various counties in England to the great market of London, that of Cambridgeshire, Oxfordshire, and Devonshire being highly esteemed. Wales and Scotland produce excellent butter, the quality being often superior to that produced in the richest pastures. Irish butter is necessarily all salted; some of it is excellent, and is often sold in London as Cambridgeshire or Dorsetshire butter, but some of it is inferior in quality. The Dutch butter owes its acknowledged superiority both to the fine pastures of Holland, and to the scrupulous neatness and cleanliness of its manufacturers, qualities which cannot be too highly extolled.

Cheese.—The curd formed from milk, and pressed and dried for use, is cheese, but certain processes are requisite to the due preparation of it. It is necessary for this purpose that the curd, which is the basis of cheese, and exists not in the cream, but in the milk, be separated from it. This is done by artificial coagulation, and when the curd is entirely freed from the whey by means of pressing and otherwise, it becomes cheese, and will keep for a great length of time free from all danger of decomposition.

In making cheese of whatever kind several circumstances require to be considered; for example, the time of year, the animals furnishing the milk, their milking and feeding, the preparation of the substance for artificially coagulating the milk, the requisite colouring matter, the management of the cheese-press, and the treatment of the cheese when made. The quality of the cheese depends on due attention being given to all these particulars.

It being hardly necessary to describe the simple utensils required, we shall proceed to some other matters, simply observing that the season of the year for cheese-making is from the beginning of May to the end of September.

Rennet is the substance used in coagulating the milk. It is made from the stomach of a calf preserved by salt. The mode of preparing it is the following:—Take a calf's stomach, wash it thoroughly clean, and salt it well inside and out. Put it into an earthen vessel and let it stand three or four days, then hang it up for two or three days that the pickle may drain from it. Salt it again, place it in a jar, cover it

tight with a paper, piereed with holes by a pin, and let it remain for twelve months. When required for use the rennet is to be soaked in water, to which may be added an infusion of sweet-briar, or a little lemon and cloves. The liquor thus made will be strong in proportion to the length of time the bag is allowed to remain in it, but experience will best determine this matter. The quantity required to coagulate any certain quantity of milk is, in ordinary circumstances, a pint of the liquid to fifty gallons of milk.

The Colouring of Cheese.—When cheese is made from good milk and at the proper season of the year, it always has a yellow colour, and as the idea of excellence is attached to the colour, artificial means are had recourse to, in order to effect it, and produce a deeper tint. To accomplish this an infusion of Spanish arnatto is employed, sufficient to communicate to the milk the required colour.

The milk intended for cheese as well as for butter ought to be carefully passed through a fine canvas sieve, to deprive it of any impurities, such as hairs, &c. That which is produced at a single milking is the best, and when brought warm from the cow it is the more readily affected by the rennet. The natural heat it possesses when taken from the udder is from 85 to 90 degrees. If it is below 85 degrees it must be raised to that temperature either by mixing hot water with the milk, or placing a vessel containing some of the milk in a copper of boiling water, and mixing the milk so heated with the rest. Much of the success of cheese-making depends upon the milk being of a proper degree of heat when the rennet is put into it.

To "set the curd" the milk has the proper quantity of rennet and colouring added to it, and the proportions of these are best learnt by experience. A little salt will promote the process when mixed with the milk before the rennet is put into it. When all the materials are in the tub they must be well stirred together, the wooden cover is then placed on the tub, and over that a woollen cloth is thrown. The usual time for curdling is from one to two hours, and the completion of the process will be ascertained only by experience; it is known by gently pressing on the surface with the back of the hand, and the degree of consistency it exhibits.

When the proper amount of firmness is attained, cut across the curd with a knife from the surface to the bottom with incisions an inch apart, and then crosswise; this will allow the whey to rise upwards through the curd, and the latter to sink downwards and become more solid. The whey is then to be removed, and great care is requisite in the process of doing so. Part of the whey is taken off with a skimmer, and a board with a weight on it is placed on the curd, by the pressure of which the whey is more perfectly separated; the curd is, after this process, cut again into small pieces, and pressed both by the weight and the hand as long as any whey is supposed to remain. And it may here be proper to state that if the whey is greenish in hue the curd may be understood to be properly formed, but if it be white the coagulation may be held to have been imperfectly carried out, and that much of the constituents of the cheese have been lost, and that the cheese will, as a necessary consequence, be of poor quality.

The transference of the curd to the cheese-vat, the process of preparing it for and subjecting it to the operation of the press, the modes of salting the cheese and treating it as the process is gradually completed, and lastly, the method of best storing the cheese, are all details of more or less importance, which can be much better learnt by a few practical lessons, or a little careful observation, than by a very lengthened and elaborate description.

Varieties of Cheese.—Having already described the general method of manufacturing cheese, we shall now refer to the various kinds most worthy of particular notice.

Parmesan Cheese.—This celebrated kind of cheese is made in the duchy of

Parma, and in various parts of Lombardy. It is made, not from goats' milk, as was formerly supposed, but from skimmed cows' milk. The high flavour it possesses is said by some to be derived from the method by which it is manufactured, by others from the rich pastures on which the cows are fed. The reader may find a particular account of the process of its manufacture in Cadell's "Journey in Italy."

Gruyere Cheese.—This is a Swiss cheese, which derives its specific name from a place in the canton of Fribourg, where it is made. It is remarkable for its fine flavour, which is said to be partly owing to the mountain pastures on which the cows are fed, but it is understood to be flavoured with the powder of the herb *Melilotus officinalis.*

Dutch Cheese. — Muriatic acid is used in Holland to coagulate the milk instead of rennet; and this is said to impart the pungent taste peculiar to the Dutch cheese, and also to preserve it from mites. The Gouda cheese, the most celebrated and most excellent cheese, is made near Leyden, as well as in Friesland. Much of the Dutch cheese manufactured expressly for England is made of skimmed milk, and is intended for sea stores, as it keeps well, from being much less rich than the higher class cheese.

Cheshire Cheese is made of entire new milk, the cream not being taken off. It is frequently made of a very large size, often from 60 lbs. to 2 cwt. It is usual in Cheshire, as well as elsewhere, to make the cheese from one day's milking, and this is said to be beneficial. The great excellence of this species of cheese must be attributed, doubtless, in some considerable degree, to the skill of its manufacture; but the rich quality and fine flavour must chiefly be due to the excellency of the milk and the rich pastures on which the cows feed.

Gloucester Cheese is made of two kinds, which are called single and double; the former is made of milk skimmed, or deprived of half its cream, the latter of the whole milk and cream. The single is not very rich, but the flavour is good; the double, however, is of great richness as well as mildness of flavour.

Stilton Cheese. — The cheese so called is made generally throughout the counties of Northampton, Rutland, Huntingdon, and Cambridge; but it was originally manufactured at Stilton, whence its name is derived. It is peculiarly rich, and has been called on that account the Parmesan of England.

Sage Cheese, or Green Cheese, is chiefly made in the valleys of Gloucester and Wilts, by colouring the curd with bruised sage and parsley, or spinach, which will impart to it the green tinge required. With this exception the ordinary process is observed.

Marigold Cheese is the cheese coloured with the juice of the freshest and best coloured marigolds, pounded in a mortar.

Cheddar Cheese.—This cheese, although deriving its name from the village of Cheddar, where it is manufactured, is also made about Glastonbury and Bridgewater. It has an agreeable flavour, and much resembles Parmesan.

Dunlop Cheese is so called from the parish of Dunlop, in Ayrshire, where it was originally made, and in which the pasturage is extremely rich. It is made entirely from new milk.

Cream Cheese. — To make cream cheese take twelve quarts of new milk and one quart of cream; put them together with ten spoonfuls of rennet just warm; when it has stood till the curd is produced, lay a cloth in the vat (which must be of the proper size for the cheese), cut out the curd with a skimming-dish, and put it into the vat till it is full, turning the cheese-cloth over it; and as the curd settles lay on more, till you have put on as much as will make one cheese. When the whey is drained out turn the cheese into a dry cloth, and lay a pound weight upon it; at night turn it out into another cloth, and the next morning salt it a little; then, having made a bed of nettles or ash leaves to lay it on, cover it with the same, shifting it twice a day for ten days, in which time it will be fit for use.

Cream Cheese, without Rennet.—Take a quart of thick rich cream, carefully skimmed from the milk, which ought to be quite thick underneath the cream; lay a strong linen cloth or table napkin over a basin, and sprinkle it with a little salt; pour the cream into the napkin, and tie it up as if for a pudding; hang up the napkin in the dairy, and put a basin under to receive the whey which will drop out. The next day, change the cream to a fresh napkin, without adding any more salt; this must be daily repeated till the cream becomes quite solid, which it ought to be on the fourth day; then fold it in a clean napkin, of whatever shape it is to be, and put a weight over it for twelve hours; take it out, have some freshly pulled nettle leaves cleanly washed, lay the cheese on a dish, cover it with the nettle leaves, and lay another dish over; in twelve hours it is fit for use.

Breakfast, Luncheon, Dinner, Tea, Supper.—Sensations of hunger and thirst are usually referred to the stomach and the throat, but they may be more properly regarded as emanating from the brain, like other sensations and emotions.

If this theory should seem perplexing to those who have not hitherto considered it, some aid to understanding may be afforded by mention of an experiment by a French physiologist, who kept a dog without food until he became ravenously hungry; then divided certain nerves which communicate between the stomach and the brain, and placed food before the animal that had been so long deprived. Instead of noticing the food, the poor dog lay down quite indifferent to the proffered meal. When, however, encouraged to do so, it began to eat in an apparently unconscious manner, and continued until stomach and throat were inordinately distended. From this and many similar experiments, it is inferred that the brain is, in matters of hunger and thirst, the true seat and centre of sensation, though it refers to the organs affecting the peculiar intimations by which we recognise our bodily wants.

Dr. Andrew Combe illustrates the theory very forcibly:—"The relation shown to subsist between the stomach and the brain enables us, in some measure, to understand the influence which strong mental emotions and earnest intellectual occupation exert over the appetite. A man in perfect health sitting down to table with an excellent appetite, receives a letter announcing an unexpected calamity, and instantly turns away with loathing from the food which, a moment before, he was prepared to eat with relish. While another, who, under the fear of some misfortune, comes to the table indifferent about food, will eat with great zest on his 'mind being relieved,' as the phrase goes, by the receipt of pleasing intelligence."

The heading of our present article suggests rather a heavy "bill of fare;" but we have no intention of recommending five meals a day, even to those whose resources may afford them. The number of meals that may with propriety be taken must naturally be influenced by the constitution and habits of the individuals, the nature of the food consumed, the season of the year, and the climate. Yet a few general hints may be given, with a view to modify the too common error of overfeeding.

"Well observe
The rule of *not too much*, by temperance taught,
In what thou eat'st and drink'st; seeking from thence
Due nourishment, not gluttonous delight."
Milton.

The leading principle to be borne in mind (and one which is too commonly overlooked) is that the use of food is not merely to impart pleasure to the palate, but to keep the bodily mechanism and substance in a state of thorough repair. The atoms that compose our bodies are subject to unceasing change; food is to the body as fuel to a fire, or as oil to a lamp; you may overcharge a fire by the renewal of coal, and extinguish a lamp by excess of oil. In the case of the body there are numerous vital conditions that may be seriously

disturbed by excess, and the experience of physical existence be rendered painful instead of pleasurable.

The consideration of the proper kinds and quantity of food, the frequency with which they may be taken, and other considerations of the like nature, are full of interest, but surrounded by difficulties, — because the constitutions, occupations, and means of mankind vary so considerably. But there is one lesson certain to arise from an investigation of the subject, and many benefits are sure to spring from that lesson; temperance and simplicity constitute the lesson, and health, vigour of intellect, cheerfulness of spirits, and real enjoyment of life, the result. Dr. Combe observes, "Food ought always to bear a relation to the age, mode of life, and circumstances of the individual, and not to be determined by a reference to time alone." Yet he admits that "the animal economy is constituted with so strong a tendency to periodical activity, that, after growth is completed, and the waste of the system becomes, from uniformity in the mode of life, in some measure definite and regular, as great an approximation as possible ought to be made to fixed times of eating. In general, little difficulty and much advantage attend the arrangement; because, where the business and habits of society are nearly the same throughout a whole class, equal waste will go on, and consequently, the demand for a supply of nourishment in all the individuals composing it will be felt at nearly the same intervals, subject only to such variations as are induced by differences of age and constitution." Keeping these leading principles in view, the following are our suggestions respecting

Breakfast.—An hour after rising is ordinarily the best breakfast time,—

"As soon as Phœbus' rays inspect us,
First, sir, I read—and then I breakfast."
Prior.

A glass of spring water, which has been kept indoors through the night, and raised a degree or two from the temperature of the cold spring, will be found productive of morning appetite and general health. The body having remained inactive during the long hours of night, and even respiration considerably subdued, it is fit to give, as far as possible, a clearance from all oppressive matters. Morning air, as well as being more dense, is generally purer and more invigorating than the rarefied atmosphere of noon or evening. A short walk will be found beneficial. Air and water should properly be the prelude of breakfast. Dr. Franklin used to recommend an "air bath,"—exposure for a few moments of the whole surface of the skin to the influence of air, assisting at the time the action of the former by friction. Viands for the breakfast-table should be light and digestible, so as not to disturb, in the early stage of the day, digestive powers that have a day's work in store for them. "Breakfast relishes," as they are called, are mostly required by persons of corrupted appetite. Potted meats, smoked and salted fish, bacon, ham, kidneys, sausages, chops, steaks, and lastly, "devils," are bad as a commencement of the day's regime. Many who read these suggestions will dissent from them, because they have formed irrational habits, and deem the "Best of Everything" to be *what they like most.* There can be nothing more suitable for breakfast than eggs, poached or boiled, and fresh fish, broiled or boiled. Watercresses are a desirable addition to the breakfast course, because they are stimulative and slightly aperient. Young lettuces have similar properties. But these properties are lessened if the vegetables have not been newly gathered. Breakfast should be a fluid meal, obviously because by perspiration and breathing the chief abstraction from the body during the night is fluid. Tea, coffee, cocoa, and chocolate, are suitable as breakfast beverages, because they contain agreeably stimulative elements. We do not like indulging in chemical terms, but the active principle of tea is called *theine*, of coffee *caffeine*, of cocoa *theobromine*. These terms are

very simple, and show that chemists are able to explain the economy of these drinks, and account for the very general favour in which they are held. The stimulative principle is similar in all of them; they are rich in *nitrogen*, an important element in food. We have little more to say about breakfast than this—that it will generally be found an acceptable arrangement to vary the morning beverage: Monday, coffee; Tuesday, tea; Wednesday, cocoa, &c.; and on Sunday, as a "home day," with time for pleasant conversation, two beverages, and a free choice thereof by the partakers.

Luncheon.—We scarcely know how to deal with this member of the family of meals. Dr. Pereira says that "luncheon is admissible only when the interval between breakfast and dinner is very prolonged, or when the quantity of food taken at breakfast is very small. The lower classes, as well as the children of the higher classes, dine early; and thus with them luncheon is unnecessary. With adults of the middle and higher classes luncheon becomes a necessary meal." We look upon luncheon as a sort of "picnickian" commissary, whose aid is to be sought under unusual circumstances. Gay, in his "Ploughboy," says,—

"When hungry thou stood'st starving like an oaf,
I sliced the luncheon from the barley loaf."

And a very good luncheon, too; for every meal of the day except dinner should bear a marked simplicity.

Dinner. — Now we may speak more generously of dinner. If you have laboured industriously, added something to the wealth of the world, and can sit down with a clear conscience, you may eat heartily, and "may good digestion wait on appetite." Dinner will be enjoyed all the more when breakfast has been light. It has been quaintly said that the best hour to dine is, "for the rich man when he can find an appetite, and for a poor man when he can find a dinner." The preparation of dinner is, in large families, the chief labour of the day. And it is a meal that, whilst it consumes a great amount of time and attention, is most easily destroyed by delay and negligence when the work has been done. Other pages of our work afford ample instructions upon plain cookery, and the preparation of useful and tempting compound dishes; we are not, therefore, about to give cooking directions here. But if there be any well-meaning cook or housemaid who has not yet learnt the "art of spoiling a dinner," we are ready to impart a knowledge thereof in one short lesson:—

Arrange the times at which you set down the various meats and compounds so that they shall be waiting for the table all sixes and sevens. Be sure that the fish is ready before the soup, which will give the former all the more time to fall to pieces; and have the various vegetables ready before the meat, that they may have time to become cold, lumpy, and soddened. As gravies are accessory to meats, so may water be to potatoes and green vegetables; give yourself no trouble, therefore, in draining off superfluous moisture. Serve up all on cold dishes, with cold covers and plates, and thus, though you may have "done everything to a turn," you will completely "turn everything to a do!" Candidly, dinners are too commonly spoilt by the most culpable acts of neglect in the simple matters of service.

Nothing is worse than for a dinner guest to keep the table waiting, and allow the crowning repast of the day to be spoiled. Shakspeare, who was as well acquainted with the philosophy of man's stomach as of his heart and brain, thus suggests the course to be pursued:—

"Perhaps some merchant hath invited him,
And from the mart he's somewhere gone to dinner.
Good sister, *let us dine, and never fret.*"

Capital advice this, and as sensible as it is candid: "don't wait for him—let us dine, and never fret." For of the several aids to digestion, relish and heat both are rapidly dissipated by waiting. Meats lose flavour, and vege-

tables aroma, by every moment's delay after being served up.

The temperate use of healthy food properly served is a great enjoyment. And now the extreme of excess has to be guarded against. "There is no subject of dietetic economy," says Dr. Beaumont, "about which people err so much as that which relates to *quantity*. . . . Eat not to *satiety*, for this is beyond the point of *healthful* indulgence, and is Nature's earliest indication of an *abuse* and *overburden* of her powers to replenish the system. When to cease eating may be known by the pleasurable sensation of *perfect satisfaction, ease, and quiescence of body and mind.* It is when the stomach says *enough*, and is distinguished by the difference of the sensations—the former feeling *enough*, the latter *too much.*"

Tea is regarded as a social, and essentially a ladies' repast; and, if at the dinner-table the indulgence in fermented or vinous drinks has been moderate, may be taken early with satisfactory effect. It matters little whether coffee or tea becomes the chosen beverage. The quantity should, however, be moderate, and the quality good; —the proper measure, as between breakfast fluid and tea fluid, is singularly indicated by the large breakfast and the small tea cup. Moderation in the use of fluid at the tea-table is forcibly suggested by the fact that the dinner meal requires a longer period for digestion than any other; and looking at the time which usually elapses between dinner and tea, the digestion of the former has been only half completed. The fluid taken at the latter meal should therefore be of kind and quantity just sufficient to stimulate to completion the digestion of the more solid meal. The French drink a single cup of strong coffee without cream immediately after dinner; and their testimony is that it acts as a strong stimulant, and imparts a feeling of comfort. But French and English diet differs considerably; our Continental neighbours take a great variety of dishes, sit a long while over their dinner-table, and the stimulant cup of coffee may be regarded as a bribe to keep the stomach from rebellion. The moral influence of tea is probably greater than the dietetic. A cheerful, chatty half-hour over "the cup that cheers" may probably assist the digestive process, or at least dispel the languor that sometimes ensues after a hearty repast. Pope's description of a teapot is somewhat symbolical of the lively effect of tea itself:—

> "A living teapot stands; one arm held out,
> One bent; the handle this, and that the spout!"

There should be, over the tea-table, more vivacity and conversation than at dinner. There is less to do in the way of carving, cutting, serving, and exchanging, affording those pleasing intervals in which the ladies, with their cheeks warmed to rosy complexion, may "minister sweet words and shrewd advice." It seems to be more the part of man than of woman to preside at the dinner-table, to wield the sword-like carving knife, and clink the attendant steel. Such interrogations as "Well or under done?" "Leg or wing?" have a masculine intonation about them. But "Tea or coffee?" "Cream and sugar?"—Are not these becoming to the gentler sex?

Supper.—"I never take supper," "I cannot sleep upon an empty stomach," are the opposite testimonies frequently borne, and one or the other will probably be responded to by the reader. We cannot prevent the bias in favour of habits of long standing. As a theory, we individually believe suppers to be bad; as a practice, we indulge in them. To us, bed without supper is night without sleep; but our habits may differ from those of others. After tea we devote some hours to literary labour. We say, with Shakspeare,—

> "I'll to my book;
> For yet, ere supper-time, must I perform
> Much business."

We therefore ask that, in return for our

evening's labours, we may be indulged with a slight repast, and that which has been humorously termed a "nightcap"! But then our head has seen some fifty years of life, and more than thirty years of mental labour. Our patriarchal friends will probably sympathize with us—yet join in an admonition to younger people,—saying that suppers are bad because they make demands upon the vascular and nervous structures at a time when they should be allowed to rest. This is especially so in the case of young people who usually eat heartily at three meals of the day, rendering a fourth an excessive indulgence. A cupful of arrowroot an hour before bedtime, or a small quantity of the newly introduced corn flour, boiled with milk, will form an agreeable termination to "our daily bread." It is scarcely necessary to add that meats, pickles, salads, cucumbers, &c., at supper-time, are offerings upon the shrine of hideous "nightmares," and the almost certain forerunners of disordered health.

Twenty Precautions against Fire.—1. Be careful to keep lucifer matches in metal boxes, out of the reach of children. 2. Wax matches are particularly dangerous, and should be kept out of the way of rats and mice; be careful in making fires with shavings and other light kindling. 3. Do not deposit coal or wood ashes in a wooden vessel, and be sure burning cinders are extinguished before they are deposited. 4. Never put firewood upon the stove to dry. 5. Do not put ashes or a light under a staircase. 6. Fill paraffine lamps only in the daytime, and never near a fire or light. 7. Be cautious in extinguishing matches, and never throw them on the floor. 8. Do not throw a cigar stump upon the floor, or into a box containing sawdust, without being certain that it is not on fire. 9. Do not blow out a candle, or put it away on a shelf or anywhere else until sure that the snuff has gone entirely out. 10. A lighted candle ought not to be stuck up against a frame wall, or placed near any portion of the woodwork in a stable, manufactory, shop, or any other place. 11. Never enter a barn or stable at night with an uncovered light. 12. Ostlers should not be allowed to smoke about stables. 13. Never take an open light to examine a gas meter, or to search for an escape of gas. 14. Do not put gas or other lights near curtains. 15. Do not read in bed, either by candle or lamp light; place glass shades over gaslights in shop windows, and do not crowd goods too close to them. 16. No smoking should ever be permitted in warehouses, especially where goods are packed or cotton stored. 17. Stove pipes should be at least four inches from woodwork, and well guarded by tin or zinc. 18. Rags ought never to be stuffed into stove pipe holes; openings in chimney flues for stove pipes which are not used ought always to be securely protected by metallic coverings. 19. Never close up a place of business in the evening without looking well to the extinguishing of lights and the proper security of the fires. 20. When retiring to bed at night, always take every precaution to see that there is no danger from your fires; that the gas, if you use it, is properly extinguished; and take care that your lights are safe.

Where shall we spend our Holidays?—In a previous page (157) we noticed some of the best English seaside watering-places; we now follow on with those of Wales, Ireland, and Scotland.

Welsh Watering-places.—Abergele.—This pleasant marine retreat lies in the county of Denbigh, on the great road from Chester to Holyhead, and about 213 miles from London. The climate is noted for its salubrity, and the sands are admirably adapted for bathing. Mrs. Hemans, the celebrated poetess, passed several years during her youth at Abergele. The "Cave Hill," a species of limestone rock, containing a remarkable cavern, divided in two, and the picturesque glen of Cefn Ogo, where Harold, the last of the Saxon kings, was attacked and overpowered by one of the Welsh

princes, are well worthy of a visit, as also the remains of an early British fort. Near the station is the scene of the terrible railway accident in August, 1868, by which thirty-four persons were burned to death.

Aberystwith.—This favourite watering-place lies on the centre shore of Cardigan Bay, in Cardiganshire, and is romantically situated between lofty mountains in the neighbourhood of the famous Plinlimmon. The town is well built, and on one of the heights will be found the remains of the ancient castle of the celebrated Cadwaladr. The air is pure and bracing, and owing to the beach having a gentle incline, it is admirably adapted for bathing, and there is a mineral spring in the neighbourhood.

Llandudno.—This is a favourite watering-place in the county of Denbigh, lying immediately under the well-known promontory of the Great Ormes Head. The sand being quite free from stones, and the water perfectly clear, the bathing is excellent. The air of Llandudno is very pure and bracing.

Rhyl.—This fashionable resort is situated on the shore of the Irish Sea in Flintshire, about thirty miles from Chester. The castle, the ruins of which still exist, was built by Llewellyn in 1015. The air is very pure, the sands excellent, and there are numerous bathing machines, and hot and salt water baths.

Swansea, or in Welsh Abertawe, rests in the centre of the beautiful Bay of Swansea, which has been called the "Bay of Naples in miniature." Hot and salt water baths can be obtained here, but to enjoy regular sea bathing, the tourist must go to "the Mumbles," about six miles off. There is excellent trout-fishing in the neighbourhood.

Irish Watering-places.—Bray.—This pretty and fashionable resort lies about twelve miles from Dublin, partly in that county and partly in Wicklow. The air here is particularly pure and bracing, and there is ample accommodation for bathing, and hot and salt water baths can be had. The tourist to Bray should not fail to visit the far-famed glen of the "Dargle" and Powerscourt in the neighbourhood.

Holywood.—This pretty little place is the delight of the citizens of Belfast, from which town it is distant only five miles, on the shore of Belfast Lough. There is excellent sea bathing, baths, and several chalybeate springs. Large quantities of mussels are found on a mussel bank at Holywood.

Howth.—Every one must be familiar with the majestic "Hill of Howth," forming as it does so prominent an object as seen from Dublin Bay. The village, which is most agreeably placed, is approached through a very charming country. Excellent sea bathing can be had in the romantically situated Bay of Balruddery close by. Howth is rich in historic reminiscences, and there are the remains of a Druidical temple.

Kingstown.—To those of our readers who occasionally visit Ireland by way of Holyhead, Kingstown must be well known as the place of debarkation of the mails. Kingstown is famous for its harbour, its piers, which form a splendid promenade, and its revolving lighthouse. During the summer, races and regattas take place, and a military band plays nearly every evening. Excellent sea bathing can be had at Monkstown and Blackrock, lying close to Kingstown, the bathing places being quite sheltered from observation by high walls.

Tramore.—Tramore is in the county Waterford, and is five miles from the city of that name, from which it can be reached by rail. The sands, which are hard and firm, are three miles in length, and excellently adapted for bathing. The town, which is particularly clean, abounds with accommodation for visitors of every class, and the air is pure and bracing.

Kilkee.—This place lies at the upper end of Kilkee Bay, and is much frequented by visitors who like a bracing atmosphere and the fresh breezes of the Atlantic. The sands are hard and firm, pleasant to walk or ride on, and the cliffs in the neighbourhood are very

high and picturesque. The accommodation is excellent. Kilkee is about fifty miles from Limerick.

Bundoran, near Sligo, is the favourite bathing place of the inhabitants of the north-west of Ireland. It somewhat resembles Ilfracombe, but being on the open Atlantic the air is much more cool and bracing, the beach is rough, but the bathing is considered good, and also the accommodation for visitors.

Queenstown is perhaps the most beautifully situated watering-place in this kingdom. The town rises in rows of crescent-shaped terraces from the edge of a large and spacious harbour, and the sands are most excellent for bathing. The climate is extremely mild and equable, particularly suited for consumptive patients, who pass the winter here in great numbers. It is near the City of Cork, and can easily be reached by rail.

Rosstrevor and Warrenpoint are situated close to each other, on the north side of Carlingford Lough, about seven miles from Newry. Lying in a wooded glen at the base of the Mourne mountains, both towns are sheltered from the north and west winds, and consequently have a mild and pleasant climate.

Scottish Watering-places.—North Berwick.—This is a favourite sea-bathing retreat of the inhabitants of the Scottish capital, from which it is distant an easy journey of an hour by rail. The little town lies on the shore of the German Ocean, at the mouth of the Frith of Forth. The beach is firm and sloping, and well suited for bathing, and there is good lodging accommodation. Close to the town are the ruins of Tantallon Castle, made famous in the poem of "Marmion," and a few hundred yards from shore, the Bass Rock, with its melancholy associations of the Scottish Covenanters.

Oban.—Oban is most romantically situated on the margin of a magnificent bay, on the coast of Argylleshire, but from some cause or another which has not yet been ascertained, the number of visitors who take up their quarters is small. The railway, however, now forming from Callender to Oban, is expected very much to increase the popularity of this highland watering-place. As the bather has the sea fresh from the Atlantic, he has the fullest advantage of pure water, but the want of bathing machines is much felt. Excursions can be made from Oban to the world-renowned Staffa and Iona.

Rothesay.—The aspect of the town of Rothesay, particularly on a summer evening, is so charming, that we shall best convey an idea of it to our readers by quoting the words of a recent poet:—

"Between the hills, the rising mist
Is flusht with sunset's loveliest rose;
From purple glens the gloaming grows,
And dyes the sea with amethyst."

Rothesay lies at the top of the bay of that name, on the northern shore of the Frith of Clyde, and is the capital of the island of Bute. The Scottish title of the Prince of Wales is derived from Rothesay. There is no good sea bathing accommodation to be had here, but it can be found at Port Bannatyne, a village immediately contiguous. The climate of Rothesay is remarkably equable and mild, and admirably adapted for persons labouring under pulmonary complaints. Numerous excursions can be made from the town, as all the passenger steamers call both going and returning. Lodgings are comfortable and very moderate.

Dunoon and Innellan.—These are two of the most charming and popular watering places on the west coast, lying on the northern bank of the Clyde, about forty miles from Glasgow. Dunoon is a place of considerable antiquity; but Innellan, which may be called a suburb to Dunoon, is quite of modern creation. From here excursions may be made to dozens of places of romantic interest by steamers, which call at the pier nearly every half-hour daily. There is capital bathing, and hot or cold baths can be had at the principal hotels.

Helensburgh. — This delightful place lies on the northern bank of the river Clyde, opposite Greenock, and

about twenty-four miles from Glasgow, and is a great favourite with the citizens of St. Mungo, as the patron saint of Glasgow is designated. Hot, cold, and shower baths can readily be obtained, and there is a good place for sea bathing, but there are no machines. The "Tail of the Bank," so well known in connection with vessels leaving Glasgow for abroad, is close to Helensburgh, and here ships have their compasses adjusted.

Largs and Millport.—Largs is one of the most fashionable marine retreats in Scotland, and is prettily situated on the southern bank of the Frith of Clyde, on the coast of Ayrshire, while Millport nestles under one of the Cumbraes, two large islands which lie nearly at the mouth of the estuary of the Clyde. It is related of a former minister of the Scottish Church on the Cumbraes, that in the course of prayers (which in the Scotch Church are always extempore), he craved a blessing on the islands of the Cumbraes, and the *adjacent* islands of Great Britain and Ireland! Sea bathing, both at Largs and Millport, is excellent.

Ardrossan.—This pleasant watering-place lies on the Ayrshire coast, opposite the Island of Arran, and about thirty miles from Glasgow. The houses and streets are elegant, and it possesses a pier 900 feet in length. In the ruins of the castle on the hill above the town is a dungeon known as "Wallace's Larder," having been the scene of an act of signal vengeance on the part of the Scottish hero against Edward I. There is excellent bathing and mineral waters.

St. Andrews.—As the ancient archiepiscopal metropolis of Scotland, and the scene of many historical associations, St. Andrews claims peculiar interest. Here is to be seen what is supposed to be the oldest place of Christian worship in Great Britain, the Church of St. Regulus. Here in 1546 Cardinal Beaton, one of the dignitaries of the Romish Church, was assassinated, and at Magus Moor, close by, a little more than a hundred years later, Archbishop Sharpe, of the Episcopalian Church, suffered the same fate. St. Andrews is romantically placed on the shore of the German Ocean, on the coast of Fife, and about thirty miles from Edinburgh. Excellent bathing can at all times be had; hot and cold baths, and good lodgings.

Nairn.—This very ancient royal burgh is situated on the shore of the Moray Frith, and at the mouth of the river Nairn. The air is remarkably pure and bracing, and the sea bathing excellent, while hot, cold, or shower baths can easily be had. In the neighbourhood of Nairn is Cawdor Castle, the supposed scene of the murder of King Duncan in Shakspeare's play of *Macbeth*, and between Nairn and Forres lies "the Blasted Heath," immortalized in the same tragedy.

The Isle of Man.—The Isle of Man is in the Irish Sea, nearly equidistant from England, Scotland, and Ireland. The climate is remarkably salubrious, and there is sea-bathing in abundance both at Douglas and Ramsey. About eleven miles from Douglas and sixteen from Ramsey, is situated Peel Castle, made famous by Sir Walter Scott in the largest of all his novels, "Peveril of the Peak." The Isle of Man formerly belonged to the Dukes of Atholl as "Kings of Man," but the island was ceded to the British Crown in 1829.

Law of Mortgage.—A mortgage deed resembles a conveyance, but contains a provision that on the borrowed money being paid, the mortgagor shall re-convey the land to the mortgagee. Or the borrower may in security deposit his title-deeds with the lender. Except in Middlesex and Yorkshire, mortgage deeds in England do not require to be registered. A mortgagee may assign his mortgage security to another. The mortgagee, if his claim is not satisfied at the time specified, may dispose of the estate and pay himself from the proceeds. Or he may enter into possession and draw the rents until his claim is discharged. Or he may foreclose the mortgage by a suit in

Chancery. When there are several mortgages over the same estate a third mortgagee may purchase the first mortgage and gain priority for his whole advances over the second mortgagee. Until the estate is sold, the mortgagor can, on the payment of the debt, compel the mortgagee to restore his property to him. Trustees who, in England, invest funds in mortgages, do so at their own risk, since mortgages are not held as first-class securities.

In Scotland there is a regular system of registration of deeds concerning land, and therefore bonds and dispositions in security are of much higher value than in England. Trustees in Scotland are entitled to invest funds in mortgage security; but in Scotland lands cannot be mortgaged simply by depositing the title-deeds with banks.

Law of Partnership.—A community of profit legally establishes a partnership, but a person receiving by way of annuity a portion of the profits of a business is not thereby constituted a partner. A dormant partner has equal rights and must share liabilities with those who are the ostensible partners. Partnership is formed by word or writing. When no specified time is settled, the partnership may be dissolved at the pleasure of either of the parties. Should it not be otherwise stipulated in the contract, the death of one of the partners dissolves the partnership; and so does his bankruptcy. One partner can bind the firm in all matters within the scope of the partnership. Dissolution of partnership must be intimated in the *London Gazette*, and should likewise be announced by circulars to all persons having transactions with the firm.

The law of partnership in Scotland is similar, with the following distinction:—While in England partners cannot in a court of law sue each other in respect of partnership transactions, the member of a firm in Scotland may sue the firm as if it were a distinct person. A firm in Scotland may be made bankrupt without a sequestration of the individual partners.

Law of Receipt Stamps.—When a receipt is in writing, and the sum paid is £2 or upwards, it must be stamped with a penny receipt stamp; it is otherwise inadmissible as evidence of payment. Payments to account on sums of £2 and upwards, if acknowledged by a written receipt, must be severally denoted by adhesive penny stamps. A written receipt for Crown taxes of any amount requires no stamp, and in like manner soldiers and sailors are exempted from stamp duty in acknowledging receipt of their pay. Receipts for deposits with bankers are exempted. Bankers' cheques must each be impressed with a penny stamp.

Catarrh.—There is perhaps no complaint so common as catarrh, or cold in the head; it occurs both in winter and summer; and it is generally said that a summer cold is more difficult to get rid of than a winter one.

The attack sets in with pains in the limbs and back, lassitude, and a sense of tightness across the forehead, repeated sneezing, watery and inflamed eyes, and increased discharge from the nose; sometimes there is inflammation of the throat and tonsils, and an eruption of vesicles about the lips.

Remedies without number have been recommended for catarrh, but few are better than the old-fashioned plan,—putting the feet into hot water, giving ten grains of Dover's powder, a hot drink, and plenty of blankets. Dr. Williams has said that any cold can be cured in forty-eight hours or less by a total abstinence from liquids, but most people would think the remedy worse than the disease. Persons susceptible to catarrh should wear warm underclothing, and use a cold bath every morning.

Hay Fever or Asthma.—This very peculiar disease appears generally as a severe attack of catarrh, with asthmatic symptoms superadded. The lining membrane of the eyes, nose, throat, and lungs is all more or less affected. The patient suffers from headache, sometimes severe, sneezing, irritation of the nose and throat, with a

dry harassing cough. The asthmatic attacks come on generally towards evening, and last from one to three hours, causing great distress.

Hay fever is not a very common complaint, and only attacks those persons who from some peculiarity of constitution are susceptible to the causes producing it. It is supposed to be caused by the inhalation of the pungent aroma of spring grass and hay, but the inhalation of the powder of ipecacuanha will also produce it in certain individuals. In the United States, where the rose is largely cultivated, similar attacks sometimes occur; it is then called rose fever or rose catarrh.

The best treatment is change of air, to the sea-side if possible. During the attacks antispasmodics, such as sal volatile, ether, or an emetic, if the patient is able to bear it, inhalations of hot steam medicated with creosote, carbolic acid, or turpentine will be found useful. When the attack passes off the general health should be improved by tonics, diet, &c.

Syrups.—In medical practice these preparations are principally employed to render active medicines less unpalatable. They are of various kinds. It will be sufficient to describe a few of those most useful in a household. What is known as simple syrup is prepared by boiling two and a half pounds of refined sugar in a pint of water till the sugar is dissolved, after which it ought to be allowed to cool. The scum should then be taken away, and the syrup poured off and kept for use. It is used in this case merely to sweeten such medicines as can be given when mixed with it.

Syrup of Senna.—This medicine differs from what is called "simple syrup" in possessing medical properties. It is prepared by digesting together for twelve hours two ounces of senna leaves, one ounce of bruised fennel seeds, then straining the liquor, mixing it with three ounces of manna and a pound of refined sugar, and boiling the whole to a proper consistence. This syrup is well adapted as a convenient laxative for children. The dose may be three or four teaspoonfuls.

Syrup of Opium.—This is prepared by mixing with an ounce of the simple syrup twenty drops of Battley's solution of opium. It is often of great use in allaying the irritation which frequently follows recent colds and keeps up a cough; it also allays pain and induces sleep in delicate patients and children. It is of considerable value in chronic coughs and asthmatic affections. In grown-up persons the dose is one or two teaspoonfuls taken occasionally, and when sleep is to be procured or pains allayed double that dose may be taken. A third or even a fourth of the quantities mentioned is sufficient for children.

Decoctions are solutions of the properties of vegetables obtained by boiling, which is presumed to be a more effective method of extracting their properties than mere infusion. In making decoctions it is necessary to subdivide the substances to be boiled as much as possible, in order that the soluble parts of the vegetables be more rapidly obtained. All decoctions ought to be quickly made, and not long kept, because the chemical constituents of many vegetable substances are liable to form compounds, by reacting on one another, entirely different from those they originally possessed. No more, indeed, ought to be made than is sufficient for immediate use.

Simple Decoction of Barley.—Take of pearl barley two ounces; water five pints. Wash the barley to remove any foreign substances that may adhere to it, then pour upon it half a pint of water and boil it for a few minutes, throw away the water in which it has thus been boiled, then add the remainder of the water boiling; boil down to two pints and strain. This is the common barley water. In all diseases producing thirst and accompanied by irritation it is well known to be of great service.

Compound Decoction of Barley.—Take of the simple decoction of barley immediately above described two pints,

sliced figs, two ounces; liquorice-root bruised, half an ounce; raisins stoned, two ounces; water, a pint. Boil the whole down to two pints and strain it. This preparation has a laxative effect, but this may be checked by the addition to the quantity now stated of two or three teaspoonfuls of the syrup of poppies.

Compound Decoction of Aloes.—Subcarbonate of potash, two scruples; extract of liquorice, half an ounce; extract of spiked aloes, powdered myrrh, powdered saffron, of each a drachm; water, one pint. Boil down the whole to twelve fluid ounces, strain the decoction, and then add compound tincture of cardamoms, four ounces. This is a mild laxative of much service in bilious and nervous ailments, low spirits, constipation, and irregularities of the intestinal canal and uterine functions. The dose is from half an ounce to four ounces taken in the morning. It is most useful if taken every second morning for two or three months, and only in such doses as shall be found by experience to act gently on the bowels, and not to produce a violent effect.

Decoction of Peruvian Bark.—Lance-leaved Peruvian bark bruised, one ounce; water, one pint. Boil for ten minutes, and strain while the liquor is hot. The dose is from one to three ounces. It is an excellent tonic, and of great use in agues and low nervous fevers.

Astringent Decoction.—Oak bark, one ounce; water, two pints. Boil down to a pint, and strain the liquor. This decoction is of great use in all cases in which its astringent properties are required, as, for example, in piles, and in the ailment known as whites. In such cases as the latter it is injected by a syringe, in the former it is used as a lotion. It is useful also in sore throat and a relaxed condition of the uvula, in which last cases three drachms of the tincture of capsicum will be found an excellent addition to each half-pint of the decoction.

Compound Decoction of Sarsaparilla.—Sarsaparilla root sliced, two ounces; boiling water, two pints. Macerate for four hours in a vessel lightly covered and placed near the fire. Having done this take out the sarsaparilla and bruise it; then place it again in the liquor; macerate as before for four hours along with the raspings of guaiacum wood, bark of sassafras root, liquorice root bruised, of each half an ounce; and bark of mezereon root, one drachm and a half, and strain the decoction. This is an excellent alterative and diaphoretic, or promoter of perspiration. It is of very signal efficacy in chronic rheumatism, cutaneous eruptions, indigestion, and various diseases arising from disorder of the constitution.

Emulsions consist of mucilaginous substances and water, which, being bland and soft in character, tend to allay irritation in the lungs and bowels, and serve, if necessary, as vehicles by which such medicines can be administered as cannot conveniently be given in a liquid state.

Emulsion of Gum-arabic.—Gum-arabic in powder, two drachms; sweet almonds blanched and white sugar, of each half an ounce; warm barley water, a pint. Dissolve the gum in the barley water, and when almost cold pour the liquor gently on the almonds and sugar, previously mixed and pounded into a powder, rubbing them so as to form a milky mixture, after which strain the whole. This emulsion is very useful in ordinary colds and coughs, as well as in strangury and irritation in the urinary organs; it is also well adapted as a means of administering medicine in these and other ailments.

Emulsion for Recent Coughs.—Oil of sweet almonds, one ounce; the yolk of one egg; orange-flower water, five ounces; mucilage of gum-arabic, half an ounce. Mix all together. A tablespoonful is the dose when the cough is troublesome. Half the quantity is adapted to young children.

Emulsion for Coughs of Long Standing. — Gum-ammoniac, two drachms; spring water, half an imperial pint. The ammoniac ought to

be rubbed well, and the water at the same time gradually added till both are thoroughly mixed. Strain the whole for use. In asthmas and old coughs, where there is no accompanying inflammation, the emulsion acts as an expectorant. The dose is one or two tablespoonfuls mixed with an equal quantity of almond emulsion made in the manner following.

Almond Emulsion.—Almond confection, two ounces; spring water, one pint. Let the water be gradually added to the confection, which ought to be rubbed at the same time, and then strained, when it will be ready for use.

Egg Emulsion.—This can be prepared as follows:—Rub the yolks of two or three eggs and a little white sugar with a pint of cold water, a glass of white wine, and a little lemon juice. This emulsion is useful as a remedy for coughs, hoarseness, costiveness, and spitting of blood; in addition to this it is a restorative drink, and from its nutritive qualities of much benefit in all cases of weakness.

Cookery for Invalids.—

Tapioca Jelly.—Wash in two or three waters a tablespoonful of large tapioca; let it soak in fresh water for five or six hours; and then in the same water simmer it to a clear jelly. Flavour it to taste.

Light Flour Pudding.—Boil a teacupful of milk, putting into it smoothly a spoonful of fine flour. As it grows cold stir it to prevent the flour from settling at the bottom. When cold add the yolk of an egg well beaten, and a small quantity of salt; tie it up in a buttered teacup or small pudding-basin, plunge it into a saucepan of boiling water, and boil it fast for half an hour. When turned out it should be firm enough to stand.

Bread Pudding.—Pour on two tablespoonfuls of bread crumbs a cup of boiling milk; when cold add the beaten yolk of an egg, and a tablespoonful of powdered white sugar, and boil in a basin for a quarter of an hour or twenty minutes. A bitter almond bruised, cinnamon, or lemon peel, may be boiled in the milk to give a flavour.

Arrowroot Pudding.—Mix a tablespoonful in cold milk, and pour it into boiling milk. When cool add the yolk of an egg well beaten, and a little sugar; put it into a basin, and boil ten minutes.

Tapioca Pudding.—Tapioca is to be prepared like arrowroot, whether as a jelly or a pudding. It is requisite, however, to soak the tapioca very long in water, and afterwards to steep it in milk.

Rice Blancmange.—Wash a tablespoonful of best rice in two waters, then set it to boil, with a small bit of lemon peel or cinnamon, and two tablespoonfuls of white sugar in half a pint of milk. If the rice absorbs all the milk, add as much more as will keep it soft and moist; when boiled to a pulp, put it into a mould till cold, when it will turn out.

Seaside Studies.—

To Preserve Specimens of Seaweed.—Those who visit the sea-side may find an interesting occupation in preserving specimens of the Algæ, for which a large number of the smaller kinds are well adapted, many of them retaining their delicate hues when properly dried, although fading with more or less rapidity when exposed to the sun.

In making a collection of seaweeds for preservation, it is of importance to gather those which flourish in the rocky pools left by the recess of the tide, or such as have been recently cast on the shore. The colours of such specimens are stronger and more decided than when they have been left exposed to the air and sunlight. Many beautiful and rare specimens are frequently cast ashore by a storm, and some may be discovered in their natural habitations on the occasion of low spring tides. After collecting the weeds, proceed to their preservation as soon as possible.

Take possession of a large table for your operations, have a white tablecloth laid on it, and then place on it the basin containing the specimens (in

fresh water), another basin, also full of fresh water, a jug of water, and the largest dish of your dinner service. Place beside you plenty of common white writing and white cartridge paper. Fill the dish with water, select a piece of "weed" from the basin, wash it in the second basin, and, according to its size, select a piece of paper, which lay on the dish, letting the water cover it; then float the piece of weed in the water over the paper, spreading it carefully out, cutting away part of the branches if too dense to be well displayed, and taking care to unravel all twists in the larger stems. A very convenient implement for this is a middle-sized camel's-hair pencil, or paint brush, with the top end of the stick made sharp. A pin or needle is too thin, and tears the soaked paper. The brush serves to sweep off fragments which float about the specimen. When nicely arranged, the paper with the seaweed on it is gently drawn from the water, watching that the sprays keep their proper places; it is drained for a few seconds, and laid on the tablecloth. Continue thus till the table is full, or till the specimens first done begin to dry, which they must not be permitted to do at this stage. Then lay over each a piece of smooth fine rag, and proceed to put all under pressure. The press may be very simple. On a broad flat board lay two or three old newspapers flatly folded, then one of the specimens on its wet paper with the rag over, then two or three more newspapers, then another specimen, and so on to the end. When all are thus laid smoothly, place a board on the top with one or two heavy books, and on top of all a bag of shot, or any other heavy weight. A ream or two of blotting-paper would be better than old newspapers, but is not always so easily procured. In two or three days, at most, remove all the damp newspapers, and substitute others which are perfectly dry, but do not disturb the rags until the papers on which the weeds are spread have become dry; then the rag will peel off the most delicate fronds without injury, leaving the specimen (in most cases) closely adhering to the white paper. Only a very few of the algæ become loose when dry, but they have a propensity to contract afterwards, and require to be kept closely between the leaves of a large book, or to be attached by means of gum to the blank pages of a book prepared for the purpose, with a memorandum stating the name of the specimen, the time when it was gathered, the place in which it was found, and any other particulars.

Many of these plants are delicate and beautiful in the extreme; and when fixed to the paper, they may with great advantage be subjected to examination with a microscope. The weeds thus prepared preserve their colours exquisitely,—at least, if care be taken to wash out the salt water before drying them and they can be rendered available for the formation of ornaments, which are very pretty for baskets, &c.

How to Warm a Large Room.—The system of heating large rooms, public halls, and churches, by means of a hot water apparatus is unquestionably the best, alike on the score of comfort and of economy. A writer in the *Builder* has described a method adopted by Dr. Hayward, of Liverpool, to warm and ventilate his own residence.

"The air is received at the basement, through gratings from the streets, into a chamber, where it is heated by hot water pipes. The warm air flows upwards through other gratings into a lobby on the next floor, from which it is diffused into the rooms on that floor, which are connected by gratings with the central lobby. A further draught of air is carried to a lobby on the next floor, and diffused in like manner. In each room there is a grating over the chandelier, into which the foul air flows, and it is carried up from each room through a pipe until the entire foul air is concentrated in a small chamber at the top of the building. This chamber is connected by a shaft with the kitchen chimney, and the foul air is drawn down through this shaft, and escapes from the chimney shaft through flues which run parallel with the smoke flue

of the kitchen. Dr. Hayward insures an equable temperature either in summer or winter, and obviates all the ordinary draughts of houses, which are productive of cold and disease."

A Few Hints on Shorthand Writing.—In these days of the electric telegraph, the universally applied steam-engine, and the other endless contrivances for the saving of time and labour, shorthand writing has become so useful that we need offer no apology for giving the subject a place in the present work. This very curious and instructive art is no longer the special accomplishment of newspaper reporters. It may be learned as easily and practised as successfully by ladies as by persons of the other sex.

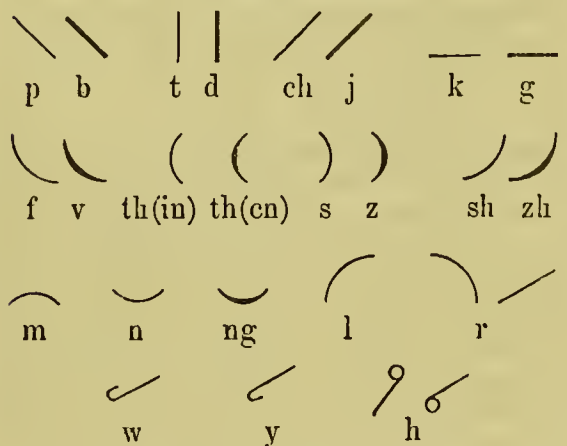
As an evening employment, especially in families that include several young people among whom there is not much difference of age, its study will be found interesting, and, like all other employments in which the thoughts and endeavours of all the members of a household are constrained to run in the same channel, it will tend to preserve the sympathies of the family group in healthy activity, and as a variety of home education, the attention it awakens, the perseverance it demands, and the information which those who practise it cannot fail to acquire, constitute it a very valuable kind of training. No one who has attained any ordinary degree of facility in writing shorthand, can have any difficulty in expressing himself accurately on paper, whether what he is asked to write be a letter, a description, a report, or a narrative. But, of course, the chief benefits of a knowledge of shorthand are not seen so much in the home as in the place of business, the warehouse, and the office. No person can possibly be the worse for knowing shorthand, and we cannot conceive of a situation in life in which it would not in a greater or less degree be an advantage. Clerks in mercantile houses, government clerks—all, indeed, whose business it may at any time be to write letters, know the value of this accomplishment, in taking down letters dictated to them prior to writing them out in long hand, in drawing up the first drafts of statements afterwards to be elaborated, &c. In the journals of the day advertisements for shorthand clerks to assist in the correspondence of mercantile establishments are continually appearing. It is perhaps only to him who wishes to become a newspaper reporter, however, that the ability to take a *verbatim* note is a *sine qua non*, but as it is the object of this work to treat on subjects from a social point of view, to consider them as they affect society generally, and not as they affect the professions merely, we shall employ the limited space at our disposal chiefly in pointing out what, after some years of practical acquaintance with it, we consider the best system of shorthand, in briefly explaining that system, and in giving hints to learners, leaving the young reporter to what he already knows are his only efficient teachers—study of the more contracted forms and practice.

The only competent authorities on the different systems of shorthand are, doubtless, professional shorthand writers. Many of these gentlemen write systems of their own, or systems based upon the invention of some one else, but upon which they have grafted a series of original contracted forms. Some write stenography, others write phonography in one form or another, and there is some difference of opinion respecting the merits of the systems. But the general opinion among reporters is that the system of phonography invented by Isaac Pitman, of Bath, in 1837, is the best, as it is also the most generally practised system of shorthand; and though many reporters commend the systems of Taylor, Gurney, and others, yet most of them, if asked the question, would certainly answer that if they had to begin the study of shorthand anew, they would study Pitman's phonography in preference to any other method. If asked to give his reasons for this preference, a practical shorthand writer would state that Pitman's method is unusually systematic, its structure is as thoroughly logical as any system of

writing in other symbols than letters can well be, it is built up like a language, and by it the most rapid speakers can be fully reported. There being no occasion for using any other than the recognised forms and combinations in order to keep up with speakers, one reporter's notes can be read by all other reporters who write this system. All the exigencies of the sounds of the English language are so completely provided for by the consonant and vowel symbols, that phonography can be written to ordinary dictation as legibly as long hand, and instances are mentioned of speeches taken *verbatim* having been set up by printers who knew the system, direct from the shorthand notes.

Phonography, or "sound-writing," is simply the writing of our language by symbols representing sounds. The symbols that represent simple consonant sounds can all be made with only one motion of the pen or pencil. This is really the key to shorthand writing. In writing the *letter t*, three motions of the pen are required, but in striking the *phonetic symbol* for that letter only one motion is required. The following are the phonetic symbols for the simple consonant sounds:—

CONSONANTS.

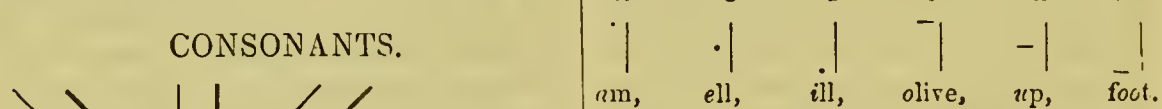


All these forms are written in the way that is found to make the most elegant, and therefore the most swiftly written outline, when combined with other forms; that is to say, the upright and sloping forms are written from top to bottom, and the horizontal forms from left to right. One exception to this rule is the form for the letter *l*, which may be written either from the bottom or the top to suit convenience; and the duplicate form for the letter *r*, which is written from the bottom. The reason for these exceptions is the all-important one that when the writer of phonography has finished one word his hand must be in the position most convenient for writing the succeeding word. It will have been seen that in the above table the only difference between the pairs of symbols for the letters *p* and *b*, *t* and *d*, &c., is that the first symbol in each pair is written thin, and the second thick; a plan which represents the relation of the one sound to the other, the first sound in each pair being less intense than the second.

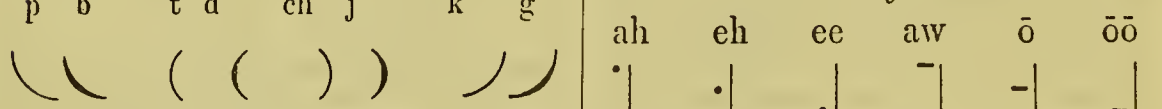
From the above table, then, we are to suppose, for the present, that the consonant skeletons of all English words can be written. In phonography the vowel sounds are expressed by dots, dashes, curves, and arrowheads, arranged as follows:—

VOWELS.

Short.



Long.



DIPHTHONGS.

From what has been explained of this system of shorthand, the student may now be able to write phonetically the line,—

"Be fit to live, that you may be fit to die."

In writing this line the first word will be phonetically expressed by writ-

ing the symbol for the letter *b*, and marking the dot for the vowel *e* after it; the second word by writing the symbols for *f* and *t without lifting the pen*, and inserting the dot for the short *i* behind the *t*, and so on.

There are three styles of phonographic writing,—the full alphabetical style, in which the symbol for each individual consonant sound is written out in full, and all the vowel points inserted; the corresponding style in which a number of words of frequent occurrence, such as "and," "the," and "that," called "grammalogues," are expressed by single letters; and the reporting style, which, according to Mr. Pitman, can be written at the rate of 200 words per minute, and might be written still more rapidly if the organs of speech did not forbid man to pronounce a greater number of words distinctly within that time. In the reporting style of phonography every expedient is made use of to insure swiftness without endangering legibility.

A good style of shorthand writing is seldom learned by persons advanced in years; for with age the hand loses its flexibility, there is a disinclination to master preliminary details, and the occupations of life become too exacting to allow of a sufficient amount of time being devoted to an employment that is not immediately productive. That phonography may be mastered in boyhood is attested by the fact that in many newspaper offices the minor reporting duties are discharged by young men still in their teens. The student should therefore commence young, and practise daily. If a week is allowed to pass without practice it will be necessary to go back over old ground, and the time will be spent in revision which might have been devoted to the acquisition of fresh knowledge.

A few lessons will enable a student to master the preliminaries, and get into the corresponding style of phonography; but, having advanced so far, he must be content to labour patiently, and practise regularly, until he can write to dictation neatly and freely. His work when practising this style must be in every sense thorough. He must make himself complete master of the exercises given; must commit to memory, and practise daily, the lists of "grammalogues" and "phraseograms," and must never weary in writing to dictation; and in this exercise he must endeavour to be neat and exact in forming his words, rather than to be quick in getting over the paper. Swift, careless practice does no actual good. In his initiatory practice he must transcribe in long hand the exercises which he writes in the phonographic character, for without doing so he will not improve. It will be better for him if, after studying for a month or two, he shall be able to write 50 words a minute, neatly, firmly, and without becoming flurried, than to write 100 words in a loose haphazard way.

Such are the directions which, from our own experience in the study and practice of shorthand, we have thought it best to give; but full instructions on all necessary matters will be found in the "Phonographic Teacher," "Manual of Phonography," and the "Reporter's Companion," published by Mr. Pitman, of Bath, and which are all the books required in order to arrive at a good working knowledge of shorthand writing.

The labour of writing out the notes will be lightened if the student works with two or more friends. In a family or in a class there is seldom any difficulty in finding some one to read to the learners.

Embroidery, No. 3.—SILK EMBROIDERY is the most difficult kind of ornamental work to explain by writing, the modes of executing it are so various, and so much of the effect depends on minutiæ, that it must be seen in the act of being worked, for any one who has not been taught the art, to have an intelligent idea of the manner in which the very beautiful result is attained. The silk embroidery now so much used on silk dresses, ladies' mantles, &c., and the designs of which are generally sprays of leaves and flowers of the

natural colours, is all worked in the same way as the crape shawls so largely imported from China, that is to say, in satin stitch, but without any stuffing under the leaves; and the proper mingling and shading of the colours, so as to produce at least an approximation to the natural shading of a flower, is a matter so entirely dependent on the taste and observation of the worker, that it is quite impossible to give any specific directions for the work.

THE MATERIAL to be embroidered must be stretched on a frame, and the pattern should be stamped on it beforehand. Purse silk is the most brilliant in colour, but it is rather closely twisted for working; this, however, may be remedied by drawing out one of the strands, which renders it softer. Floss silk is also used, but it is not nearly so durable as the purse silk; Filoselle is only used in Berlin work. The stitches used are the common raised satin stitch without the stuffing, and the slanting satin stitch, or Point de Plume. In shading, the lighter shades are sometimes worked in stitches between the darker ones, to make the shading more gradual, but this must be seen to be understood. Point Russe is a stitch used in embroidery on leather, such as slippers, cigar cases, &c.; the pattern is stamped on the leather, and the tracing perforated with small holes through which the needle passes, and the pattern appears like a rather long plain stitch; this stitch is also used with ingrain silk on muslin.

BRAIDING WITH SILK OR WORSTED BRAID on silk, merino, &c., may be classed as a kind of embroidery, and the drawing of patterns for it to ornament babies' cloaks, dresses for little children, cushions, and other fancy articles, was formerly a very nice as well as a very tedious art; they can now be stamped by machinery in a few minutes, and instead of carefully sewing on every row of braid, and watching the turning of all corners to keep them flat and prevent the work from ripping, the worker can now, by the application of a very simple piece of mechanism to the sewing machine, execute the most complicated and elaborate pattern of braiding, with the utmost ease, and in one-half the time that such a piece of work would take to be done by hand.

Hints on the Practice of Music. — A thorough efficiency in music can neither be attained nor maintained without industrious practice. The great mechanical powers of some professional performers are the result of years of laborious application, and many artists even continue this application throughout their lives. Knowing that music, unlike other arts, cannot be mastered by any less exacting course, they forego alike the profits of teaching, and the recreation offered by other studies, in order to devote the whole day to practice, with the view to maintain the highest possible efficiency of execution. As few amateurs are, however, able to devote so many hours of each day to the practice of music, it is important to know the most economical system of using what time *can* be set apart for that study. Three hours daily should at least be taken (four hours would be better) if an adequate proficiency in good music be aimed at. A portion of the time may be taken early in the morning, and the other portion at a later period,—not too late in the evening, for the writer has observed that late practice is with some a cause of sleeplessness. Children should never practise except under the guidance of a parent or governess.

WHAT SHOULD BE PRACTISED. — As three important qualifications are aimed at by the pianoforte student, viz., *muscular agility*, *facility in playing music at sight*, and *a tasteful style*, the practice should be arranged with a view to their acquirement. *Muscular power* practically comes first, and it should be sought for in a vigorous practice of scales and other exercises, and of certain gymnastic methods, with or without the use of such inventions as the "Digitorium." Exercises which are found to make the hardest work should be principally chosen. The "Daily exercise" and. *Etudes de la vélocité* of Czerny, the scales of Kalk-

brenner, and the finger exercises of Herz and Schmidt may be named among the best for the purpose; while those of Cramer, Bertini, and Heller will be found improving studies in style, taste, and expression,—qualities, however, which may be acquired by the study of the compositions to which they are intended to lead. An hour daily should be given to vigorous exercises of the former sort, and the student should work away without mercy. The next point to be attended to is *sight-reading*, and it may soon be acquired by daily playing through half a dozen new pieces of a rather easy description, choosing fresh pieces every day. For the attainment of the third requirement, *taste* (or style), the pupil should set apart the remainder of his or her time in practising lessons given by the music-master, and according to his directions and example. It will be found most useful to take a few lessons in the theory of music—harmony or composition,—a quarter of an hour being sufficient for any exercises on this subject.

The student should remember the old adage, "Practice makes perfect," and by his industry justify his teacher in leading him on to the highest class of music, instead of the poor rubbish which is advertised in the public journals; and when he experiences the enjoyment of the elevated works of Bach, Mozart, Beethoven, and Mendelssohn, or the delightful thoughts of such composers as Weber, Dussek, Chopin, Schumann, Bennett, and Heller, he will be thankful for the training he has received, and rejoice at the industry which has placed him beyond the temptation of the flimsy style which gratifies the dilatory amateur.

The Metronome with bell will be found of great service in the acquirement of correct time in performance. It may be used at first only in the easiest pieces, but eventually with more elaborate compositions. It should be remembered that the bell strikes on the first beat of each bar, and it should be set according to the time of each movement, whether of two, three, four, or more beats in a bar.

A "grand piano" of horizontal form is the best for all purposes. Avoid a common instrument if you do not wish to ruin your touch and spoil your ear. And, as practice on an ill-toned instrument is nothing short of torture, be careful not only to work on a good piano, but to have it kept in good tune. Once a month will not be too often for the tuner to attend.

Music-copying, except in the study of harmony, is not to be recommended, as music is now so cheap, and the time may be better spent at the piano, or even in healthful recreation, which is important to the pianist, for he has to develop muscular as well as mental powers, and health is therefore to him a primary consideration.

Loss of Appetite.—There are two causes for loss of appetite—the excessive use of stimulants and violent mental emotions. Those who are constitutionally delicate are very liable to this complaint, and such persons should observe strict regularity in their meals.

"Pray heaven we be not scant of meat or mirth." *Scott.*

Walking exercise is essential to the maintenance of a proper appetite. Taking wine or other stimulants in the forenoon or before dinner is hurtful, and ought to be avoided, and four hours at least should elapse between the period of each meal. The appetite may be improved by taking half a spoonful of bitters in a glass of sherry a short time before meals. Quinine in any form or pepsine wine will be found very effective in cases of disordered digestion, and fresh air, regular exercise, and strict temperance, are the best means of alleviating or checking loss of appetite.

Hints on Poultry.

The Domestic Duck.—Ducks are of no small importance in rural economy, and no poultry-yard, however well appointed, can be considered complete without them. They are very prolific. The eggs are much

relished by many people on account of their flavour and richness, in which they are superior to the eggs of the common fowl, and these qualities make them in great request with the pastrycook, one duck egg, according to culinary estimate, being equal to two hen eggs. The flesh of the duck has a peculiar flavour, but by no means unwholesome; it is, however, apt to be affected by the description of food the birds live upon, and as the duck is a foul feeder, devouring everything in the way of food that it finds edible, care must be taken some time before it is brought to the table, to confine it to more select food than ducks can usually discover for themselves, even with all their usual industry.

THE COMMON DUCK does not make a good hatcher. She is apt to allow her eggs to become cold; and this arises from the delight she takes in the water; and from the same cause, how cold soever the weather may be, she will take the young brood to make their first essay in the art of swimming as soon as they are out of the shell,—a practice always injurious. For these and other reasons the plan of setting duck eggs under a hen is frequently adopted, and with much success, owing to the superior degree of maternal solicitude for her web-footed charge which the instinct of the hen prompts her to cherish. The eggs of the duck are hatched in thirty-one days. The young birds ought to be kept a day or two from the water, even in fine weather, and certainly when the weather is cold. Their first food ought to be boiled barley mixed up with boiled nettles and hard-boiled eggs. They will soon be able to take care of themselves, exhibiting, notwithstanding the astonishment and terror of the hen, intense delight in taking to the water, and marvellous activity in seeking food on the new element. There are several varieties of the domestic duck; many of them are crosses produced by different breeds, and exhibiting great diversity in plumage and considerable difference in size.

Perhaps the two most esteemed varieties are THE AYLESBURY DUCK, a large and handsome bird,—the flesh is excellent, and so delicate in flavour that it has been compared to that of a chicken; and THE ROUEN DUCK, an excellent variety, superior in flavour to the Aylesbury, which is certainly no small praise.

A large number of ducks are known to the naturalist, many of them beautiful birds. Some of the foreign varieties which are readily tamed are remarkably well adapted for ponds and other ornamental waters, although their small size and the inferior quality of their flesh render them much less useful than the common ducks. For a special description of these beautiful aquatic fowls we must refer our readers to works on natural history.

We shall now give our attention to the subject of geese, of which there are several varieties. Our object, however, is to confine our remarks to such as are most useful in domestic economy, as it does not strictly come within the scope of this work to assume the province of the naturalist, unless in so far as our so doing is directly adapted to matters of immediate household interest.

THE DOMESTIC GOOSE.—There are two kinds of domestic geese, which, however, are not distinguished from each other by peculiarities which render them different in species, but merely by size and colour; they are either large or small, white or grey. Of these the grey is in several respects the best kind, for this reason, according to some judges, that it approaches nearer than others to the common wild goose, which is considered the origin of all the domestic species of Europe.

The best judges say that care should be taken to avoid having geese of mixed colours, that is to say, they ought to be entirely grey or altogether white; and there can be no doubt that this opinion is the result of sound experience and deserves the greatest attention. For all domestic purposes the grey colour, as already stated, is the best.

THE GOOSE lays from ten to twenty

eggs before sitting, and when well fed and attended to she will lay and hatch three times in a year. She begins to lay early in March, and even towards the end of February. The period of laying may be perceived in the circumstance that the goose at that time carries about straws in its bill, prompted by the development of the maternal instinct to prepare a nest. When this practice is observed it will be found prudent to confine the bird, providing her with a nest for laying and hatching in, which should be made of straw lined with hay, and so formed that the eggs will not readily fall out, especially when the bird turns them. Fifteen eggs will be sufficient to place under even a large bird. The period of incubation is a month, but some of the goslings may be hatched a day or two sooner; it is, however, desirable that all the young birds be hatched about the same time, and to this end as much care as is practicable should be taken to have all the eggs equally fresh. When the brood are hatched they ought to be turned out into a sunny place, sheltered alike from cold winds or bad weather; but it is not only unnecessary but prejudicial to feed them for twelve hours or so. Their earliest food ought to be bread soaked in milk, curds, porridge, boiled greens, boiled potatoes mixed with bran; and such food ought to be given them at a moderate temperature, so as to avoid the entrance of heat or cold, and for a couple of days at least after being hatched the goslings ought not to be allowed access to cold water, which often gives them cramp.

As a general rule, geese ought to be confined as little as possible. If they are allowed to stroll about the fields, ditches, and runs of water, they will forage for themselves very successfully. Grass and water are essential to their comfort and well-being, such grass especially as may be found on damp and swampy soil, and which, however rank or coarse it may be, is well adapted to them. In harvest-time the stubble-fields are an excellent pasturage for them; they can there pick up no small supply of corn which would otherwise be lost, and they obtain abundance of young grass and other herbage. The advantages of a stubble-field, however, are not always to be had, but where this occurs the kitchen-garden may be made available. In autumn the geese may be turned into it without the danger of their doing any serious damage; but they ought to be fed occasionally on boiled potatoes, bruised up with bran, or the result of their foraging for themselves in the kitchen-garden will not be productive of any advantage.

Goslings in June and July will fatten without any food beyond what they can gather for themselves in the stubble-fields; but if it be necessary to hasten the process they must be supplied with additional nutriment for that purpose, such as potatoes and turnips bruised with meal, and they should thus be fed once a day. There are various methods of fattening geese, but the simplest and best is nutritive food, and in abundance.

The modes of cramming adopted in France, Poland, and other countries, are all more or less cruel, besides being injurious, for the fat of the goose under such forcing measures becomes rank, and the flesh unwholesome. The goose will become sufficiently fat if kept in a coop in a dark place, and supplied with as much good and nutritious food as it will eat. The foreign geese which have been introduced to this country are the Chinese Goose, the white Chinese Goose, the black-legged Chinese Goose, the Hong Kong Goose. All these breeds are good, and well worthy to have a place in the poultry-yard. But there is one which vastly excels them, and to which we shall now refer, without any attempt to describe the numerous varieties of the goose which are wild, and which it is the province of the naturalist to attend to.

The Toulouse Goose.—This fine bird is by some understood to be the unmixed and immediate descendant of the wild goose, properly so called, while

others regard it merely as a well-grown specimen of the common domestic goose. It is known as the Mediterranean or Pyrenean goose, as well as by the name given above. It is remarkable for its immense size, and is a most valuable addition to our poultry-yards. The colour of this goose is a slaty blue, marked with bars of brown and black. The flesh is said to be tender and excellent.

The Apple.—There are nearly 1,600 various species of this favourite fruit. The tree, which is seldom more than forty feet high, attains its greatest perfection when planted in a strong loam; wet soil being prejudicial. An apple tree which is old and has left off bearing may be revived by the copious application of manure to the roots. Painting the tree with lime water is highly beneficial; it removes both moss and insects, and the tree experiences a complete revival. The apple is propagated by seed and grafting. In propagating by the former method the seed should in autumn be placed in beds or pots on and below the surface. An apple tree raised from seed will in five or six years bear fruit. Grafting is carried out in spring, generally in the beginning of March. The trees are trained as *standards* or *espaliers*, the latter being more suitable for garden culture. Apples should be pulled before they are quite ripe, spread out on a dry floor, and when fully ripe they may be stored up, care being taken to remove every one showing any sign of decay. The fruit is used for dessert, baking, making jelly, and cider. Vinegar and malic acid, used for medicinal purposes, are extracted from the apple. The best species are those imported from France, Canada, and the northern parts of the United States.

Advertising.—If you decide upon advertising, do so thoroughly, and be careful to select the best channels. As a rule, book advertisements should be confined to the literary journals; a book advertisement in a strictly commercial journal being useless. The outside wrapper of a periodical is of great value to advertisers, and a general notification, short and precise, is sufficient. "Griffiths is the safe man" was an announcement which, two years ago, covered the hoardings and even the pavement of the London streets. Next followed the inquiry in large bold letters, "Who's Griffiths?" At length the advertiser revealed himself as a dealer in fire-proof safes, and a rush was made to his establishment.

Advertising should be persistent; as the sale for any commodity will continue so long as its qualities are set forth. A shirt-maker, who had been in the habit of advertising largely, and much to his advantage, suddenly withdrew his advertisements, in the hope that he was sufficiently well known. During the first year he pursued this plan, he saved an expenditure of £1,200, but his profits during the following year were £1,500 less! "I can close my premises at any time," said a friend of ours, a large advertiser, "and by advertising that I have reopened with a fresh stock I have more customers than ever."

The I O U.—An I O U can be tendered in evidence unstamped, but the document must be stamped if the acknowledgment of the debt is accompanied with a promise to pay on a certain day. Except for a gambling debt, the amount due upon an I O U can be recovered by a legal action.

Hotch-Potch, Summer.—A Favourite Scotch Soup.—Boil a good-sized neck or breast of lamb for half an hour; take out of the soup pot half a dozen of the best chops, and lay them aside: then boil the rest to a good stock. Wash and cut into small pieces four freshly pulled young turnips, four young carrots, a dozen young onions, a good-sized lettuce, and a small bunch of parsley; boil all these in the stock one hour. Twenty minutes before the soup is required cut up a fresh cauliflower and put it in, together with a quart of green peas, a pint of young beans, and a little pepper and salt; heat the chops that have been laid aside, and pour the soup over them in the tureen. A sprig of mint is an improvement.

Autumn.

Two Travellers.

Along the highland road a traveller free
Came where Bjorn's Gate unlinks the mountain-chain,
And shoreward shows a glittering breadth of sea,
Landward a vale that waves with yellow grain.

As he came to the Gate, a full bent sail
Crept slowly from the hill across the bay;
The traveller turned him to the autumn vale,
The barque with luffed yards paused upon her way.

Lightly across the road the traveller stept,
And leaning on the grey moss-covered wall,
Gazed at the lonely hills where silence slept,
And heard alone the waves resounding fall.

And glad of heart was he, for through a land
Of fairest, freshest beauty he had passed;
Had seen the white wave curling on the strand,
The sunbeam striking far through valleys vast.

Had heard the second brood of finches try
Their skilless pipes in twitterings faint and clear
In leafless briars, where the hips' scarlet dye
Seemed like a second blossoming of the year.

And now he cheers the reapers at their work;
The ingathering he prays may plenteous be,
Blesses the children 'neath the sheaves that lurk,
The Ruth-like girl that gleans so maidenly.

O happy heart! Then why the bitter tears
That brim his eyes and burn upon his face?
"Let plenty reign," he cries, "for years and years,
And peace and love inhabit this dear place!

"My garner's bare! My sickle idly borne,
My life a formless wreck upon the shore!
My heart dead to all others'—I but mourn
Lost love—lost love—lost love for evermore!"

Along the mountain road a man that weeps
Unknowing and unknown pursues his way;
To unnamed shores a white-sailed vessel sweeps,
Nor e'er again is seen upon that bay.

D. MURRAY SMITH.

The Month of September.

"A quiet autumn eve. The sun was flinging
Long deepening shadows on the purple hill;
And, save the vespers happy birds were singing,
Or the faint sheep-bell, all was hushed and still."

Rev. R. H. Baynes, M.A.

The name September, which signifies the seventh month, has become inappropriate since we altered our calendar, and made the year to begin in January instead of in March; and this has also rendered the names of the three following months equally unsuitable, October, the eighth month, being in reality the tenth; November, the ninth, is the eleventh; and December, the tenth month, is now the twelfth and last month of the year.

September is usually a fine and pleasant month, particularly in the earlier part of it; but after the autumnal equinox, which takes place on the 23rd, the weather is often wet and stormy for a few days. This is one of

the busiest months for the sportsman, being the height of the shooting season, and the corn-fields, which so lately echoed back only the songs and shouts of the reapers, resound with the frequent crack of the fowling-piece, and the call of the hunter to his dogs. Grouse and blackcock abound on the moors, while the quail and the partridge seek refuge in the lately cut stubbles. The wild fruits are in their greatest profusion as well as perfection; the hedgerows abound with haw berries just turning red, and with the brilliant scarlet rose hips; the blackberry and sloe are found in profusion on the heaths and commons, while the ripe hazel nuts drop from their green husks on to the soft wood grass, making a plentiful harvest for the timid wood-mouse and the graceful squirrel, who store up the nuts in their nests for their winter provision.

The Saxons called September Barley month, because they then reaped their harvest of barley. In September, 1665, the Great Plague was at its greatest height in London. In the week ending September 19th upwards of ten thousand persons died in the metropolis alone; and on the 2nd September in the following year the Great Fire broke out and destroyed a hundred parish churches, the Royal Exchange, old St. Paul's, and at least two-thirds of the city of London.

Cook's Calendar for September.—Fish in season: turbot, brill, flounders, plaice, soles, haddock, herrings, mullet, eels, cod, carp, tench, perch, pike, gurnards, whitings, lobsters, crabs.

Meat in season: beef, mutton, lamb, veal, venison.

Poultry and Game in season: chickens, ducks, geese, pigeons, turkey poults, larks, wheatears, grouse, blackcock, partridge, hare, wild duck, plover, snipe, quails, rabbits.

Vegetables in season: artichokes, peas, beans, cabbages, lettuce, endive, cauliflowers, leeks, cucumbers, radishes, shalots, tomatoes, vegctable marrow, mushrooms.

Fruit in season: grapes, peaches, apricots, plums, nectarines, apples, pears, melons, figs, quinces, filberts, hazel nuts.

Gardener's Calendar for September.—The early crop of potatoes will show that they are ripe about this time, by the decaying of the haulm. They should be taken up in dry weather and carefully stored in a dry cellar, covered with straw, or put in small pits with straw and earth. Onions will also be ripe; they must be pulled up and dried on the ground for a few days, then stored in a cool dry place where they have plenty of air. Plant out cauliflowers in a sheltered spot, also cabbages in every spare place. Take up carrots and parsnips as soon as their leaves begin to look yellow. Earth up celery and winter spinach, and gather all the seeds that are ripe. Gather carefully the apples and pears intended for winter use; lay them gently on the apple racks, and see that they have neither damp spots nor bruises on the peel, or they will not keep. Nuts must also be stored in a dry airy place. Those trees whose fruits have been gathered may now be pruned, particularly the smaller fruit trees. This is also a good time to form mushroom beds. In the flower-garden begin the planting of the early spring bulbs, such as lilies, crown imperials, snowdrops, daffodils, and even the earliest tulips and hyacinths. Look over and shelter auriculas, pot all layers and offsets, cut in the smooth-barked roses, house all plants intended to be saved through the winter, part the roots of perennials and plant out the hardy seedlings, watch and trap all insects, particularly earwigs and slugs. Should frost set in early, protect the dahlia roots, or they will not keep after they are taken up.

Hints on Pickles.—Some time since it appeared to be the fashion that all pickles should have a bright green colour, almost brighter than the pickled vegetable itself possessed when quite fresh, or even when growing under the most favourable circumstances.

All vegetables, when subjected to the influence of heat, lose a considerable portion of their natural colouring matter, or it undergoes some chemical change, which renders the colour faded and sometimes withered in appearance; if therefore pickles must be bright green, they must be coloured, and the most common way in which that was done was by letting them lie in a copper vessel. The vinegar with which they were covered absorbed some portion of the copper, and gave a green tinge (which, however, was highly poisonous) to the pickle. So many accidents occurred from the use of these green pickles that the fashion declined, and makers who advertise pickles have ceased to mention their green colour as one of their recommendations.

The vegetables intended for pickling are in most cases put either into salt or strong brine for a few days, to extract some of the fluid which all vegetables contain, and which would so much weaken the vinegar that it would have to be renewed in a very short time. Vinegar for pickles must be the best French white wine vinegar, and the spices, (which should be the best and freshest that can be procured) may be tied up in a muslin bag and boiled in the vinegar until all the flavour has been extracted by it. An enamelled pan is the best and safest thing to boil any strong acid in. Mixed pickles under various names, such as piccalilli, Capt. White's pickles, mixed pickles, &c., can be procured at a very small cost, and those made by Crosse & Blackwell, Lazenby, and others, are so good that it is not worth while to buy vegetables for the purpose of home pickling ; but in the country, where there is a large garden and a good supply of vegetables, some of them may be made with very little trouble into exceedingly good and wholesome pickles. We shall give a few tried receipts, which may serve as examples for all.

Mixed Pickles.—Take half a pint of half-grown French beans, as nearly of the same size as possible, a dozen gherkins, each from two to three inches long, a small green cucumber cut into slices about half an inch thick ; put these into a pan of brine, strong enough to float an egg. Let them lie for three days, stirring them each day, then place them in an enamelled preserving pan, with vine leaves under and over them, pour in the brine in which they have been steeped, and cover them closely to prevent the steam escaping ; set them over a slow fire, but do not allow them to boil; when they become a green colour, drain them through a sieve and let them remain till the other ingredients are ready. Pull a small white cauliflower into branches, and lay it in strong brine, together with half a pint of onions, the size of marbles, peeled, a dozen fresh chilis (scarlet), or a few scarlet capsicums; let them remain three or four days, then arrange them in pickle bottles with the green pickle already done interspersed in a tasteful manner through them. Boil as much good vinegar as will be sufficient to fill up the bottles, with some whole allspice, white pepper, bruised ginger, mace, mustard seed, and slices of horseradish. When the vinegar tastes very strong of these spices strain it carefully (unless they have been tied in a bag as already recommended). Let the vinegar stand till cold, then fill the bottles and cork securely.

To make Indian Pickle (communicated by a native of India).—Pull a white cauliflower into branches, peel the stalk and slice it; slice a small white cabbage, a cucumber, a dozen onions, and six tomatoes ; add six cloves of garlic, one dozen shalots, a dozen capsicums, half a pint of French beans, some radish pods, and a large handful of scraped horseradish. Lay all these vegetables in a pan, and pour over them strong boiling brine. Let them lie half an hour, then drain off the brine, and dry them in the sun, or in a cool oven. Boil one gallon of vinegar with four ounces of pounded black pepper, four ounces of pounded white pepper, two ounces of pounded chilis, two ounces of pounded ginger, one ounce of pounded cloves, four ounces of mus-

tard flour, two ounces of turmeric, and one ounce of mustard seed. Lay the vegetables in a stone jar, pour the vinegar and spices while boiling hot over them, and when cold, cover the jar with a bladder. In a month it will be fit for use.

Bengal Chutney.—One pound of tamarind pulp, one pound of sultana raisins, the grated rind and half the juice of twelve lemons, one pound of tomato pulp, one pound of minced apples, a quarter of a pound of peeled garlic, six chopped onions, half a pound of red chilis, one pound of ginger in powder, one pound of moist sugar, and four quarts of strong vinegar. Mix the whole thoroughly together, and keep it for a month in a warm place to ferment; stir it occasionally, and then put it into small jars.

To Pickle Onions. — Peel some small onions the size of marbles, and throw them into strong brine; let them remain eight days, changing the brine three times; drain them, and dry in a soft cloth; pack them into pickle bottles, and fill up the bottles with cold vinegar, in which spice has been boiled, as directed in the receipt for Mixed Pickles. A teaspoonful of salad oil poured on the top of the vinegar is said to prevent the onions from turning yellow.

To Pickle Mushrooms.—Take a quart of small *field* button mushrooms, cut the stems close, and rub off the skin with a bit of flannel and a little salt; throw them as they are done into salt and spring water. Drain and dry them in a cloth. Put a quart of strong vinegar into an enamelled pan, with an ounce of bruised ginger, half an ounce of whole white pepper, half an ounce of mustard seed. Tie up in a bit of muslin a small nutmeg sliced, and half a saltspoonful of cayenne; put this along with a tablespoonful of salt into the vinegar, and let it and the spices come to a boil. When boiling briskly throw in the mushrooms, and let them boil ten minutes. Take out the muslin bag, and put the other spices into the pickle bottles, along with the mushrooms and vinegar. When quite cold, cork the bottles, and cover them with a bladder.

Home-made Wines.—Very great care and attention are requisite in wine-making; we shall therefore give our readers a few general directions applicable alike to the preparation of any sort of home-made wine, and then follow up with such special receipts necessary for such kinds of wine as may be found most worthy of the notice of our readers.

The Fruit.—Whatever be the fruit from which it is intended to make wine, it ought to be gathered before it is perfectly ripe, and when the weather is dry and sunny. In wet weather the taste and flavour of the fruit are apt to be injured and weakened by the quantity of superfluous moisture it imbibes, and the quality of the wine will necessarily be inferior. When the fruit is gathered, great care must be exercised to pick out every particle of it that is in any way spoiled or tainted, for one ill-flavoured berry will damage the juice of several dozens of good ones.

The first part of the process is the bruising of the fruit. This must be carefully done; all the husks or skin of the fruit, together with the seeds, must be excluded, as an important means of improving the flavour and quality of the wine. The juice mixed with water and the proper quantity of sugar is then to be put to ferment in the vat, for which purpose a cask with the end off will be found perfectly suitable. The less water that is mixed with the juice of the fruit and the less sugar the better. White wines will ferment in the vat sufficiently in two or three days, but red wines require two or three days more. When the juice has undergone the requisite fermentation, the next part of the process is the clearing of the liquor. This is to be done by straining it in a winepress, or passing it through a hair or canvas bag or a hair sieve. This being carefully accomplished, the liquor is to be put into the cask, and filled till within an inch of the bung-hole, which must be slightly covered. The cask must

then be placed in a cool situation, and the process known as the spirituous fermentation will take place, by which the liquor will be greatly purified. When this fermentation has subsided, the spirits prescribed must be added, and the cask filled up and bunged. The last part of the process is the *racking*. For this purpose the cask ought to be pegged in about six weeks or two months, in order that the clearness of its contents may be ascertained; and if it appear that the wine is bright and clear, it must be carefully racked off from the lees into another cask; and if it do not appear sufficiently transparent on the first racking, the wine ought to be racked a second or third time, after resting sufficiently long after the process has been gone through. The wine ought to be bottled in clear, settled weather, and as soon as possible after it has been fined, and the bottles ought to be perfectly clean and dry. The best kind of corks should be used, as there is not only no economy in purchasing cheap corks, but no inconsiderable danger of spoiling the wine.

Various methods are employed for improving home-made wines which seem to require it. The leaves of the sweet bay and the peach, kernels of fruit, almonds, cloves, ginger, &c., are used to impart to it both flavour and perfume; brandy is mixed with it to give strength; and bruised raisins soaked in spirits are employed to improve the liquor when it is flat.

Having made these general observations, we shall now present our readers with some simple directions for making a few of the best home-made wines.

Red Currant Wine.—Take thirty-six pints of the fruit, and one pint of raspberries. Mix with them twenty pints of water. When these have fermented, add twenty pounds of good sugar; and after the wine is casked, two pints of brandy or whisky without any special flavour.

Red Gooseberry Wine. — Take equal quantities of water and bruised fruit, and to every twenty pints of the mixture add fifteen pounds of loaf sugar and one pound of sliced beetroot. When fermented, put into the cask a quart or more of brandy or flavourless whisky.

A Good Wine of Mixed Fruits.—Take equal measures of water and fruit, such as white, black, or red currants, raspberries, cherries, strawberries, and gooseberries; bruise, strain, and ferment the juice, adding fifteen pounds of sugar for every twenty gallons of the liquor. A handful of sweet marjoram and a quarter of a pound of ginger will give flavour and perfume. Add two quarts of brandy or whisky, but do not put any flavouring.

Damson Wine.—Gather the fruit dry, weigh and bruise it, and to every eight pounds of fruit add one gallon of water; boil the water, pour it on the fruit scalding hot; let it stand two days; then draw it off, put it into a clean cask, and to every gallon of liquor add two and a half pounds of good sugar; fill the cask. It may be bottled off after standing in the cask a year. On bottling the wine, put a small lump of loaf sugar into every bottle.

Cherry Wine.—Gather the cherries when quite ripe. Pull them from their stalks, and press them through a hair sieve. To every gallon of the liquor add two pounds of lump sugar finely beaten, stir all together, and put it into a vessel that will just hold it. When it has done fermenting, stop it very close for three months, and then bottle it off for use.

Black Cherry Wine.—Boil for an hour six gallons of spring water, and on twenty-four pounds of bruised black cherries pour the boiling water, and stir them well together; after they have stood twenty-four hours, strain the liquor through a cloth, and to every gallon add two pounds of sugar; then mix it well and let it stand a day longer. Pour off the clear liquor into a cask, keep it close bunged, and when fine, bottle it off for use.

Raspberry Wine.—Bruise the fruit and put the juice into a cask, bung it close for forty-eight hours, after which open the bung, and close it up again in

two days. It may be bottled off in three months.

Blackberry Wine.—Put the ripe fruit into a vessel of wood or stone, with a cock in it. Pour on the fruit as much boiling water as will cover it, and as soon as the heat will allow, bruise the fruit with the hand till the berries are broken. Let them remain covered till they begin to rise towards the top, which will be in three or four days; then draw off the clear part of the liquor into another vessel, and to every ten quarts add one pound of sugar, stirring it well in, and let it stand a week or ten days to work, then draw it off through a jelly-bag into a large vessel. Steep four ounces of isinglass for twelve hours in a pint of white wine, and then boil it till dissolved over a slow fire. Boil together a gallon of the blackberry juice with the dissolved isinglass; pour all into the vessel, let it stand a few days to settle, and draw it off and keep it in a cool place.

Mulberry Wine.—The mulberries ought to be gathered when they are just turning from red to black, and when they are quite free from dew or moisture. When gathered, let them be spread loose on a cloth or a clean floor, and let them lie for twenty-four hours. Then, having put them into a proper vessel, squeeze out the juice, and drain it off from the seeds. Then boil a gallon of water for each gallon of juice; skim the water, and add some cinnamon slightly bruised. To each gallon add six ounces of white sugar-candy finely powdered. Skim and strain when the liquor is settled, and add to it more of the juice. To every gallon of the liquor add a pint of white or Rhenish wine. Let it stand to settle in the cask five or six days, then draw it off and keep it in a cool place.

Apricot Wine.—Wipe clean and cut twelve pounds of apricots; boil them in two gallons of water till the water has imbibed the flavour of the fruit; then strain the liquor through a hair sieve, and to each quart of it put six ounces of loaf sugar; then boil it again, skim, and pour it into an earthen vessel. Next day bottle it off, and into each bottle put a lump of sugar.

Grape Wine.—Let a gallon of bruised grapes and a gallon of water, mixed together, stand for a week without being stirred; then draw it off, and to one gallon of the wine add three pounds of sugar, put it into a suitable vessel, and do not bung it till the fermentation ceases.

Hints on Cider and Perry. — Cider. — Red-streaked pippins, gennetings, golden pippins, &c., are all well adapted for the making of cider. They ought to be so ripe as to be easily shaken from the tree. The apples must in the first place be bruised or ground very small, and, when reduced to pulp, put into a hair bag and squeezed in a cider-press to extract all the juice; the liquor is then to be strained through a fine hair sieve into a cask carefully purified; the pulp is to be mashed with a little warm water. In order to make the liquor "work kindly" beat a little honey, three whites of eggs, and a little flour together; put these ingredients into a fine rag, and let them hang down by a string into the middle of the cider cask; then put in a pint of new ale yeast warmed, and let the liquor clear itself from dross five or six days; after this draw it off from the lees into a smaller cask, or bottle it if more convenient or desirable. It is proper to observe that apples of superior quality and flavour produce the strongest cider, and that in making this liquor, summer and winter fruit must never be mixed together.

To Fine Cider.—For this purpose isinglass must be used, and a little mustard in it will prevent the cider from becoming sour. In order to improve both the appearance and the flavour of cider, take for a hogshead a gallon of good brandy, half an ounce of cochineal, a pound of alum, and three pounds of sugar-candy; bruise them all together in a mortar, and infuse them in the brandy for a day or two; then mix the whole with the

cider, stop it up close and let it stand for five or six months.

PERRY.—This liquor is made from pears in the same way as cider, and it is also fined in the same way. The pears must be quite dry. The best fruit is that which is least fitted to be eaten, and the redder the pears are the better.

TO BOTTLE CIDER AND PERRY.—Both of these liquors when bottled in warm weather should be allowed to become flat by being left a day or two uncorked. If the liquor has become too flat in the cask, and may soon be required for use, let a small lump or two of sugar-candy be put into each bottle, four or five raisins, or a small piece of raw beef; any of these articles will much improve the liquor, and make it brisk. It should be well corked and wired, and kept upright in a cool place.

Poultry.—THE TURKEY.—The value of this bird renders it unnecessary for us to offer any apology for presenting to our readers some detailed account of it.

The origin of the turkey was long a matter of doubt, but it has now been ascertained that it is to America we owe this valuable addition to our domestic fowls. It is supposed to have been first domesticated by the Spaniards, after their discovery of Mexico, and probably before the year 1526, and to have been introduced into this country in 1530. It therefore has been known to us for the long period of 340 years.

The wild turkey was formerly an inhabitant of Canada and of various parts of the United States. It is now to be found chiefly in the wilder regions of Kentucky, Ohio, Illinois, and Indiana. In their wild state they are migratory birds, and about the end of autumn they assemble in great flocks for this purpose. According to the best authenticated accounts, these flocks all move forward in the same direction, seldom taking wing unless to escape an enemy or make their way over a river.

After arriving where they are to settle, they divide into small flocks made up of cocks, hens, and the younger birds. Their food consists of beech-mast, seeds, beetles, flies, as well as young frogs and lizards.

Domestication appears to have produced much diversity of colour in the turkey; we have black, grey, white, copper-colour, bronze, and brown. Of all these, the black turkey is decidedly the best. It is more hardy than any other, more easily reared, and with proper feeding, quickly acquires flesh and grows larger than any other variety.

THE NORFOLK BREED are greatly esteemed. This celebrated kind is said to have been produced by a cross with the original wild breed; but many of those produced in Ireland are quite equal in bulk to those of Norfolk, and probably for similar reasons.

No birds are more profitable to the cottager than turkeys. They can do a great deal in providing themselves with food, and forage for themselves about the lanes, and in dry ditches and hedgerows obtain a supply of slugs, snails, and worms, although it must be admitted that their love of grain renders them very troublesome to the farmer.

The approach of the laying season, which is usually in the month of March, is indicated by the liveliness of the hen and the peculiar cry which she frequently utters. The bird ought to be provided with a nest, having a piece of chalk in it of the form of an egg to induce her to commence laying in it. Sometimes, however, this proves to be difficult. The instinctive habit of seeking a secret and concealed place for this purpose leads the hen to escape and select her nest at a distance, to which she retires to deposit her eggs, exercising no small degree of cunning in her efforts to escape notice. The spot is frequently so secluded that the bird must be watched as she makes her way to it. If she is not discovered and brought back, together with her eggs, to a more secure retreat, she may fall a victim to the fox during her incubation, and her eggs or young ones may be destroyed by vermin.

The turkey lays generally every day, or every second day, and the number of eggs is from fifteen to twenty. The

eggs ought to be removed from the nest as soon as laid, for if they are left to accumulate, the bird is apt to break some of them; but they can afterwards be replaced. The time of sitting is from twenty-seven to thirty-one days, during which time the hen exhibits the utmost perseverance in her maternal duties. Some of the young birds make their appearance sooner than others, and these ought to be removed and kept in a warm place, and returned to the hen when they have all escaped from the shell. According to the best judges, the young chicks ought not to be fed for some hours after hatching, and when food is to be given, it ought to be hard-boiled eggs, chopped up with boiled nettles and a little bread crumb. This should be made into a paste and given in small particles to the little birds in the palm of one's hand, or placed before them on a stone. The turkey-hen does not teach her young brood to seek their food, and it is usual to place a few hen eggs under her when she is sitting, that the chickens, who are wonderfully expert, may afford the little turkeys an excellent example in providing for themselves. The young birds are very susceptible of injury from cold and wet, and care must be taken not to allow them to be exposed to either. If the weather at the time of hatching be inclement, they ought to be confined within their house. Unless in very warm weather indeed, they ought not to be allowed to run about for two or three weeks, and then only when it is very dry. When they are about two months old, and have acquired the reddish-coloured feathers on the head and neck which indicate the approach of maturity, the danger arising from exposure and wet is greatly diminished; but while the change in the hue of the feathers is coming on, the birds require to be supplied with good and nourishing food, in which should be put a little cayenne pepper.

The Pea-fowl.—This bird is a native of India, in some provinces of which vast region it occurs in immense numbers. It is supposed to have been introduced into Europe so far back as the time of Alexander the Great, and it has long been domesticated in this country, where in many a country-seat it forms an appropriate ornament. It is truly a magnificent bird when in full feather, and seems by no means unaware of its own splendour; for when pleased or in the sight of his hen, the peacock seems as if inflated with pride, struts about with his tail spread out, and turning frequently round, as if to display his plumes to the greatest advantage. Pea-fowl, like other birds of the poultry kind, feed chiefly on corn, preferring barley. They are, however, great devourers of fruit, and very mischievous in a garden, scratching up the ground, for they regard insects and worms among their dainties. The hen lays five or six eggs, choosing for the place of her nest some retired spot out of the way of the peacock, who is often cruel to his offspring. She sits from twenty-seven to thirty days. The peacock in former times was frequently served up at great festivals, but its flesh was never much esteemed. It is said, however, that when young, well fed, and fat, it is excellent. Pea-fowl are quarrelsome birds, and will hardly live in peace with other inhabitants of the poultry-yard unless reared along with them.

To take Grease Stains out of Wall Papers.—Oil marks can be taken from the paper on drawing-room walls, and marks where people have rested their heads, by mixing pipeclay with water to the consistency of cream, laying it on the spot, and letting it remain till the following day, when it may be easily removed with a penknife or brush.

Remedy for the Bite of the Harvest Bug.—The most effectual remedy is benzine, which immediately kills the insect. A minute drop of tincture of iodine has the same effect. Tincture of pyrethrum or Persian insect powder might have the same effect. Many sufferers prevent the attacks by sprinkling a little benzine over the stockings before walking.

The Best Lamps and Oils.—"Betty, bring the candles," exclaimed Charles Lamb, after announcing his intention of inditing a treatise on the "Solar System," in one of the wittiest of his essays. The great essayist's grotesque notion of describing the sun and stars—"those never-dying lights"—by the assistance of the primitive "dips" commonly in use in his day, was a thoroughly characteristic one. But, had he lived in these days, instead of calling for the candles, Elia would probably have asked his housekeeper to trim the lamp; for there is very little literary work, or indeed work of any kind demanding care, now done by candle-light. And although astonishing improvements have recently been made in the manufacture of candles (see "A Few Words on Candles," page 144), the advances attained in the lamp manufacture are no less remarkable. We do not mean to say that in the matter of design our lamps surpass the graceful *lucernæ* of Greece and Rome; but when it is recollected that the greater number of "antique" lamps purchased by English tourists at Herculaneum and Pompeii are made in Birmingham, and done into antiquity by a cheap chemical process, it will be granted that at least imitative art is not yet dead among us. But if our lamps are generally pillar-like and uninteresting in form, to suit the requirements of the oils now used for lighting purposes, yet in one most important respect they much excel those of early times. The beautiful lamps of Etruria may, perhaps, have given a light equal in brightness to that of one of our candles, but our single-wick lamps give a light as bright as that cast by seven, and in some cases by ten candles. And, after all, the power of throwing a bright light, and not the quality of pleasing the artistic eye by grace of outline, is what we chiefly require in a lamp.

Though lamps have been in use from the earliest times, it has only been within the last century that improvements were introduced in their manufacture. In 1784, Argand invented the circular wick, and thereby put an end practically to the reign of King Smoke as far as lamps were concerned, and, shortly after, his brother supplemented his invention by accidentally discovering the efficacy of a glass cylinder or chimney in steadying the lamp-flame, creating a draught, and diffusing the greatest amount of light. In the beginning of the present century M. Carcel made use of clockwork in connection with lamps for the purpose of raising the oil; but this complicated appliance was discarded on the subsequent invention of the "moderator." In this lamp, as is well known, the ascent of the oil is caused by the downward pressure of a spring and piston, and regulated or moderated—whence the name of the lamp—by the action of a wire placed within the tube through which the oil ascends. This wire acts in such a way that the supply of oil to the burner is always equable, and a steady, unvarying light maintained.

The lamp trade has received a vigorous impulse within the last twenty years, during which time petroleum and paraffine oils have been discovered. Paraffine oil affords a cheaper and much brighter light than candles, and although its use is attended with danger, it is almost universally used by that very large class who, for the sake of economy, are obliged to forego some degree of comfort and security. Lamps for this oil are made in almost endless variety, and the cheapest of them can be obtained at a trifling cost.

Of the variety of lamps now in use our limits permit us to mention only those most generally in demand in society, and therefore we shall confine ourselves to a notice of the best lamps for sitting-rooms, for the study or office, and for outdoor illumination; and these we take to be respectively the moderator, the Queen's reading lamp, and the passage or fixed light.

The Moderator.—The moderator is not liable to be put out of order readily, as the three movements or operations required in preparing it for use—

filling with oil, winding up the spring, and putting on the cotton—can be easily performed. The best of these lamps are *de luxe* in design and ornamentation, and all the resources of painting, moulding, and carving, on porcelain, glass, and metal, are drawn upon to enrich them.

The Queen's Reading Lamp is a *sine qua non* in the study, the office, or the laboratory. It is peculiarly the lamp for students and clergymen. It consists of a metal stand with a cylinder for holding oil on one side, and a burner, with shade, &c., on the other. The strong pipe which conveys the oil from the cylinder through the stand to the wick-tube serves to bind together the different parts of the lamp. The porcelain shade around and above the burner, and which is open below, protects the eyes against any glare, and at the same time throws down upon the book or the writing-desk a light that is at once brilliant and soft. The structure of this lamp has been modified by the manufacturers, so as to render it—by closing it against access by insects, and otherwise adapting it to the climate—a suitable reading-lamp for India. It is made in German silver, brass, bronze, and electro-plate; is light, elegant, and strong; is easily trimmed, and burns less than the ordinary quantity of oil.

The Passage Lamp is used for a variety of purposes. The back of its oil-cylinder is flat, so as to allow of its being suspended on walls. Enclosed in a glass lantern, to protect the flame from the wind, it is admirably adapted for lighting avenues, grounds, the banks of ornamental lakes, &c. If the glass of the lanterns is coloured the picturesque effect is of course increased. It is this lamp that has been used for illuminating Wimbledon Camp with so much success since its foundation. The Passage Lamp, which is provided with a reflector, throws a light as strong as that cast by seven candles.

Oils.—In the lamps we have noticed Colza oil is burned. This oil is cheap, though not the cheapest; burns without producing smell or smoke, throws a soft though bright and clear light, and, being non-explosive, may be used without fear of accident. All these advantages are possessed by no other oil in equal degree. In the Moderator and Reading Lamp sperm oil was formerly used; but Colza oil is superior to sperm oil, and is only one-third of the cost. Paraffine, and especially petroleum oils, can never be obtained entirely free from smell. They are dangerous, from their readiness to take fire, and terrible accidents have happened by the inflammable vapours that rise from them exploding in the reservoirs of lamps. This fact alone is sufficient to exclude all explosive oils and inflammable spirits used for burning in lamps from the household of the educated and the judicious. We by no means deny that the naphtha, petroleums, and paraffine oils are useful for many purposes in trade and manufacture; but until science has given man a perfect control over these dangerous liquids by rendering them inexplosive, they ought to be regarded as agents of a nature too treacherous and of a character less than sufficiently established to be admitted within the domestic circle. Within the last few years an oil has been patented called Carcel oil, the recommendation of which is, that while it possesses all the good qualities of the best oil, it may be burned for years before the lamp in which it is used requires to be cleaned.*

Savings Banks.—The first savings bank opened in this country was in the year 1810, at Ruthwell, in Dumfriesshire, and between that year and 1817, seventy-eight were in existence in different parts of the country. In the latter year a Savings Bank Act was passed, when an account was opened with the Commissioners for the Reduction of the National Debt, who allowed £4 3s. 11d. per cent. interest. In 1828 another Act was passed, in which the interest was reduced to £3 8s. 3¼d. per cent.; and in 1833 and

* The oils and lamps mentioned in this article may be obtained of all lamp manufacturers or oilmen.

1835 Acts were passed to enable savings banks to grant deferred annuities, payable by periodical instalments. In 1844 the interest to depositors was altered to £3 10s. per cent., and the annual amount to be invested was restricted to £30.

Post Office Savings Banks.—These were established by Act of Parliament in 1861. Deposits of not less than one shilling may at any time be made to a Post Office Savings Bank, and may be increased or withdrawn at any other Post Office Bank. No one can deposit more than £30 in one year, or £150 in all, exclusive of interest. Two pounds ten shillings per cent. per annum, or sixpence per pound interest is allowed, but no interest is given to individual depositors when the balance amounts to £200.

Post Office Insurance.—Through the medium of the Post Office, persons of either sex may insure. The limited ages are from 16 to 60, and the limited sums from £20 to £100. The smallest instalment received is 2s. No single life can be insured for less than £20 on the whole, but when a life has been insured for £20, further insurance on the same life may be effected till the sum amounts in all to £100.

The more important features connected with post-office insurance are these:—1. If the purchaser of a deferred life annuity dies before the annuity becomes due, the entire amount of his payments, but without interest, is paid to his executors. 2. When the purchaser of an annuity is unable to continue his payments, he may either have his money back without interest, or have a deferred annuity equivalent in amount to the money he has paid. 3. On the death of an annuitant, a sum equal to one-fourth of his annuity will be paid to his representatives, if claimed within two years.

The following table represents nine different modes of paying the premium on one particular insurance. A man or woman at the age of thirty may insure £100 to his or her survivors at the death of either of them,—

	£	s.	d.
1. By a single payment of .	43	3	7
2. By an annual payment for life of	2	6	7
3. By a quarterly „ .	0	13	0
4. By a monthly „ .	0	4	4
5. By a fortnightly „ .	0	2	2
6. By an annual payment, until the insurer reaches 60 years, of . . .	2	13	10
7. By a quarterly payment, until the insurer reaches 60 years, of . . .	0	15	0
8. By a monthly payment, until the insurer reaches 60 years, of . . .	0	5	0
9. By a fortnightly payment, until the insurer reaches 60 years, of . .	0	2	6

Persons of either sex may purchase annuities of not more than £30, and for lives from ten years old and upward. Two persons may purchase an annuity on their joint lives. Deferred annuities form part of the scheme. A man aged 30 may purchase a deferred annuity of £10, to commence on his reaching the age of 60, for one immediate payment of £24 3s. 4d., or an annual payment of £1 8s. 4d. Or a man aged 30 may purchase a deferred allowance of £2 7s. 3d. per month, to commence when he reaches the age of 60 by a payment of 8s. per month until he reaches that age. A husband and wife may each be insured to the full amount of £100, and may each purchase an annuity of £50, or a monthly allowance of £4 3s. 4d. Persons whose lives are insured through the Post Office have Government security for the payment of the premiums.

To Collect and Preserve Specimens of Plants.—To form what is called the *hortus siccus* or *herbarium* various methods are employed, but the following is recommended as the most simple.

The articles requisite for the purpose consist of a dozen quires of smooth soft paper of a large size, six boards of about an inch in thickness, and four iron or lead weights, two of them about thirty pounds, and the two others about half

that weight, and a botanical box of tin, and of such dimensions as shall be most convenient for the collector.

The plants to be preserved ought, if possible, to be gathered in dry weather; but if the weather be wet they ought to be laid out for some time on a table till partially dried, and when the roots are taken up along with the stems, they ought to be washed and then exposed to the air for the same purpose.

To Preserve Plants.—Lay over one of the boards two or three sheets of the paper. On the uppermost sheet spread out the specimen to be preserved, unfolding its parts so as to give it as natural an appearance as possible, laying out the leaves and flowers with particular care. Over the specimen thus disposed of place several sheets of paper; on the uppermost sheet then spread out another specimen, and so proceed till all the plants you intend to preserve are laid down; and having put over the whole some more sheets of paper, place a board over them with the weights upon it, which may be a number of clean bricks, if the iron or lead weights cannot conveniently be procured.

As some plants are delicate and flexible, and others comparatively thick and hard, the former class will require less weight to be placed over them, and the latter considerably more. To preserve the colour of flowers when drying, the greatest care is required in changing the papers every second day, which papers first ought to be well dried at the fire. With regard to keeping the shape of flowers, the utmost care and attention is necessary when arranging them on the paper, and which can be done by having another piece of paper, and gently laying on part of the flower. The part of the flower so covered with the paper ought to have a small book placed on it. Then begin and lay out the other leaves of the flower, and also press it, and so on, until each part has had the gentle pressure necessary to keep it in position. Let them remain so for a short time, and then put some heavy weight on them: look at them next day, and change the damp paper. We have kept ferns for years quite fresh in colour by this simple mode of drying.

In three or four days the plants thus treated should be taken out, together with the paper in which they have been deposited, and laid in fresh paper with three or four sheets between every two plants, and the board and weights laid upon them as before. This process must be continued till the plants are perfectly dried. Each specimen is then to be placed on a sheet of dry paper, along with a memorandum of the name of the plant, the place and time at which it was gathered, the character of the soil from which it was taken, and any other particulars tending to illustrate its character and history.

Presuming the process of drying to be satisfactorily carried out, the next business of the collector is the

Arrangement of his Specimens.—To this end he must procure a quantity of writing or printing paper, of stout quality and large size, five or six sheets of which ought to be stitched into coloured covers. Let a sufficient quantity of large post writing-paper, cut into half-sheets of folio size, be in readiness. Each plant is then to be placed on one of these half-sheets, and fastened to it by means of slips of paper gummed across it in various places. On the top of the page the particulars contained in the memorandum already referred to should be written. The plants thus secured to the half-sheets must then be placed in the order required (either by the Natural or Artificial systems) within the leaves contained in the coloured covers; the size of each bundle of specimens rendering it convenient at any time for purposes of reference. Twelve of such parcels so contained in the same number of coloured covers can then be tied up in covers of stout pasteboard, and laid up in a cabinet or box suited to the purpose.

Another Method of drying plants before laying them aside and arranging them in a systematic manner, may here be mentioned as worthy of attention. Get a shallow pan or tray about the

size of the blotting-paper used for drying plants. Lay the plants in the usual way between the sheets of the blotting-paper, and when the tray or pan is nearly full, cover it over with a layer of dry sand half an inch thick or so, and place it on the fender before the fire or on the hob, and in three hours the plants will be perfectly dried.

The Silkworm.—Ages before silk was seen or known in Europe it was in common use among the Chinese. When the Emperor Aurelian refused to give his empress a robe of silk on account of its high price, the lean, unwashed artificer of China went about his ordinary occupation clad in silken garments. Pliny mentions that Pamphila, a woman of the island of Coos, was the first who unwound the cocoon of the silkworm, and wove the threads into cloth. This must have been about the time of Solomon, many centuries before the reign of the Emperor Heliogabalus, who died A.D. 222, and who is said to have been the first who wore a robe of this costly material.

The Eggs of the *Papilio bombyx mori*, or silkworm moth, are said to have been first brought into Europe about the year A.D. 550 by two monks, who, having carried them in hollow canes, introduced them into Constantinople, from whence they reached Italy, which country became the emporium for silk, both raw and manufactured. Queen Elizabeth had a pair of silk stockings presented to her in the third year of her reign, and was much pleased with them. Her Majesty said they were "a marvellous delicate wear," and resolved she would never use any other fabric. James the Sixth of Scotland is said to have begged a loan of a pair of silk stockings he saw the Earl of Mar wearing, in order to make a suitable appearance before the English ambassador. This monarch, after adding the kingdom of England to his ancient sovereignty of Scotland, urged the culture of silk with all his authority. In the course of a few years the manufacture of silk in England became very considerable, and the art was greatly improved by many skilful workmen who took refuge in this country on the revocation of the Edict of Nantes.

The *Bombyx mori* is a pale-coloured moth, with two or three obscure transverse streaks, and a lunate spot on the superior wings. The caterpillar of this moth feeds on the leaves of the mulberry, a tree which is a native of China. Before assuming the chrysalis state, it spins for itself a covering in the shape of an oval cocoon of the finest silks, usually of a yellow hue, but occasionally white. From these cocoons the silk is carefully wound off to furnish the fabric we so much admire.

The Rearing of Silkworms is in this country rather an occupation adapted to amuse than to profit those engaged in it. The female moth is induced to lay her eggs, which are about 300 in number, on sheets of paper, to which, by their natural viscosity, they readily adhere. These eggs are of a pale hue, but those destined to be productive become of a bluish grey colour. A stove-room, with a temperature of 64 degrees, will be sufficient for the hatching of the eggs, but the heat may with advantage be raised a few degrees every day for ten days, so as not to exceed ultimately 80 degrees. The worms, however, are known to thrive in summer in any comfortably kept apartment, but it is certain that a continuous warmth, day and night, is a great advantage to them. Whatever portions of a brood are hatched at the same time, those which are of the same age ought, for the sake of due care and safety, to be kept and fed together. The worms should be fed regularly four times a day, and when their extraordinary appetite manifests itself, intermediate meals should be given.

Warm and comfortable quarters, as well as abundance of food, are of importance to the animals, and tend to hasten the process of spinning. These matters must be carefully attended to by those who rear the silkworm for profit rather than mere amusement.

When the silkworm first appears it is of a dark colour, and is only a line or

two in length. In about eight days it is seized with sickness and lethargy. It refuses food, remains motionless, and at the end of three days casts its skin. Prior to this transformation the worm is said to exercise a marvellous and admirable instinct. It fixes down its old coat so that it may not be dragged after it when it is no longer fit for wear. The old habiliments then open at their anterior extremity, and the worm, newly and delicately robed, creeps forth and resumes its lost appetite; leaving, in its cast-off garments, an exact picture of its former self, including the skin of the eyes and the teeth. Three additional changes subsequently take place, each after a period of five days, spent by the worm in feasting, during which it rapidly increases in size. At the end of the fourth period it is from two and a half to three inches in length; its desire for food abates, and the worm manifests an unequivocal desire to begin its spinning.

The silkworm will live on the leaves of lettuce, but this food is not their natural sustenance, and they become languid and feeble. The leaves of the white and black mulberry afford the only suitable aliment.

Hints on Knitting.—The art of knitting, although very generally known, is not of any great antiquity. It is supposed to have been invented in Scotland early in the sixteenth century, and the invention was applied at first to the manufacture of stockings only. Knitted stockings were imported from Scotland into France about 1530, and a guild of stocking knitters was formed in that country, who placed themselves under the patronage of "St. Fiacre of Scotland." Knitted silk stockings were both rare and costly, and considered as suitable presents for crowned heads. The gift of silk stockings to Henry the Eighth, Edward the Sixth, and Queen Elizabeth is recorded as amongst the remarkable events in each of these reigns. William Lee, of Nottingham, conceived the idea of making a machine that should so closely imitate the action of the fingers in knitting that a similar fabric would be produced; and about 1589 he completed the first rude attempt at a stocking frame, which has since been very much modified and improved. It can now knit silk and thread stockings so fine, that a pair can be enclosed in a walnut-shell.

Though the invention of the knitting frame has superseded knitting as a manufacture, yet among the poorer classes, especially in the country, the knitting of woollen socks and stockings is still very general; and in Scotland, fancy knitting in fine wool called Shetland shawls, veils, &c., is a considerable branch of industry. Knitting has one advantage over most kinds of fancy work, as it is so mechanical that persons of weak sight, and even the blind, can knit almost as well as those with the keenest eye-sight. A good knitter can read or talk whilst knitting; it is, therefore, an exception to the rule which states that "no person can do two things well at the same time."

The implements used in knitting are pins of bone or ivory, and steel pins tapered at both ends. These latter are used in knitting work of a round nature, such as a stocking; four pins or knitting needles are necessary for this purpose, three of them for the stitches to be cast on, the fourth to knit them off with. The bone pins have a button at one end to prevent the loops coming off; they are used for flat pieces of work, such as shawls, antimacassars, &c.

The terms used in knitting are few and simple.

Plain knitting is smooth on the right side, and looped on the wrong side, like a stocking.

Purling is bringing the loops on the *right* side of the article. This is done by putting the thread before the right hand pin, which is slipped in the loop at the *front* of the left hand pin, instead of at the *back* of it.

To make a stitch, pass the thread round the pin before putting it into the loop.

To decrease, slip off a stitch without knitting it; knit the next one, and put the slipped stitch over it.

To JOIN KNITTING divido the stitches on to two pins; lay them side by side, and knit the two together, by taking a loop off each at the same time with a third pin, and as they are knit perform the last operation in knitting; *i.e.*

To CAST OFF.—When two stitches are knitted, draw the first one over the second, knit a third, and draw the second over it, and so on to the end of the seam.

Capes, jackets, and habit shirts, which are so comfortable for ladies to wear under their mantles in winter, are much more elastic if done in knitting than those done in crochet work; for these the brioche stitch is the best, being extremely elastic and very simple. Any number of stitches that will divide by three is suitable for this pattern. Knit the work backwards and forwards in the same stitch, beginning with a plain stitch to form the edge; then put the thread forward, slip one stitch, knit two together, and repeat this to the end of the work. Woollen inside vests for ladies and children are very nice done in fine white or scarlet wool with fine bone pins in this stitch, but it requires some little experience in knitting to be able to shape the vest to the figure and size of the person for whom it is intended.

To Clean White or very Light Silks.—Take one quart of lukewarm water, and mix with it four ounces of soft soap, four ounces of honey, and a good-sized wineglass of gin. The silk must be unpicked and laid in widths on a kitchen table; then take a common scrubbing brush quite new, dip it in the mixture, and rub the silk firmly up and down on both sides, so as to saturate it. Rinse it in cold water twice until free from soap, hang it on a clothes horse to drain until half dry; then iron it with a piece of thin muslin between it and the iron, or it will be marked on the ironed side. The silk when laid on the table must be kept quite smooth, so that every part may come under the brush. White silk requires a little blue in the water.

To Wash White Silk Stockings.—Heat some rain or soft water, and while on the fire cut into it slices of good yellow soap, to make a lather; put the stockings in while the lather is warm, but not scalding, and wash them in two such waters (a wineglassful of gin in the first water is an improvement); rinse them well in lukewarm water, having ready a second rinsing water, in which is mixed a little blue (not the common kind, but such as is used for muslins and laces), or rose pink, which can be procured at the chemist's, and is used in the same way as the blue, by tying it up in a piece of flannel and squeezing it into the water. Judson's pink dye gives a very pretty tint, and can be made brighter or fainter according to taste. After rinsing, put the stockings between towels and let them get almost dry; place them on a small sheet, lay them out quite flat, as they are when first purchased, tack them to the sheet with a needle and thread, turn the sheet over them, and have them mangled. If it is not convenient to have them mangled, the next best plan is to put four or six stockings one upon the other between a piece of calico, lay them on a stone doorstep, and beat them with the rolling pin. They must not be mangled or beaten in towels, as the pattern of the towels would be impressed on them. If the stockings have lace fronts they will more particularly require the tacking mentioned above to make them look nice. No soda or washing powder of any kind must be put to them, and they must be done quickly, and not left lying about.

English Mineral Spas.—Referring to our previous notices of watering-places at pages 157 and 176, we now complete our list by presenting our readers with notices of the principal mineral spas.

BATH.—This picturesque and fashionable city lies on the banks of the Avon in Somersetshire, and has long been celebrated for its thermal or hot springs, both saline and chalybeate.

Bath is of great antiquity, having been founded by the Romans under the name of Aquæ Salis; and rather more than a century ago some elegant baths of their construction were discovered. The climate is most salubrious, there are numerous walks and drives, and ample accommodation for visitors.

Malvern.—This delightful place is in Worcestershire, eight miles from the county town on the side of the Malvern hills. The Abbey is of great antiquity, having been founded by Edward the Confessor. The air is pure and invigorating; there are two mineral springs, whose waters are used externally and internally, and there is abundant lodging accommodation.

Cheltenham.—This is said to be the queen of English inland watering-places, and is delightfully situated on the banks of the river Chelt in Gloucestershire. The climate is very mild and agreeable, as the town is sheltered from the north and east winds by the Malvern, Rockhampton, and Cotswold Hills. There are four springs, of a saline, acidulous, and chalybeate nature, of great service in bilious complaints, and lodgings are very numerous and moderate.

Clifton.—This romantically situated place is the delight not only of the good people of Bristol, to which city it forms a sort of suburb, but is resorted to by numerous visitors from all parts of the world. There is a magnificent chain bridge here, said to be the finest in the world except the one across the Niagara river in Canada. The climate is at once elastic and genial, and particularly beneficial in cases of consumption. Clifton is rich in lovely scenery, and its hot baths have been celebrated for upwards of two centuries. Lodgings are abundant and cheap.

Harrowgate.—This favourite spa is situated in Yorkshire, about eighteen miles from Leeds. The town is divided into two districts, one (High Harrowgate) in which is the town proper, and in the other (Low Harrowgate) the mineral springs are situated. No less than 12,000 persons visit Harrowgate each season, which lasts from May to September, and there is ample accommodation for all, and at moderate rates. The air is pure and bracing, and the medicinal springs, which are saline, sulphurous, and chalybeate, and which are nearly 100 in number, are beneficial in derangement of the digestive organs, gout, and disorders of the skin.

Buxton.—This popular place lies among the Derbyshire hills, about thirty miles from Derby, and is about 1,000 feet above the level of the sea. There are nearly 15,000 visitors during the season, which extends from June to October. The springs are saline, sulphurous, and chalybeate, and are said to be very serviceable in rheumatic complaints. There is plenty of lodging and hotel accommodation at moderate rates; charming scenery in the neighbourhood; and within a few miles lies Haddon Hall, where the unfortunate Mary Stuart was confined previously to her removal to Fotheringay. The Duke of Devonshire's magnificent mansion of Chatsworth, with its superb garden and grounds, designed by Sir Joseph Paxton, can easily be visited from Buxton.

Matlock.—This pretty village is charmingly situated at the bottom of the vale of the Derwent, in Derbyshire, and about sixteen miles from Derby. The air is deliciously pure and cool, and the neighbourhood abounds in objects of interest, the most noteworthy being the caverns, one of which is large enough to contain 10,000 men. The waters are beneficial in dyspeptic, rheumatic, and even in pulmonary complaints. Lodgings are good and moderate.

Tunbridge Wells.—Evelyn, the well-known author of "Silva," the earliest work on the culture of forest trees, and who flourished in the seventeenth century, describes Tunbridge Wells much as the visitor will find it at the present day, "a very sweet place, private and refreshing." Tunbridge Wells lies in Kent, about forty-six miles from London. The climate is healthy

and invigorating. Tunbridge Castle, built in the eleventh century, is worthy of a visit. There are several delightful walks; and in the neighbourhood is Eridge Castle, the seat of the Earl of Abergavenny. The springs are chalybeate, powerfully tonic, and beneficial in cases of physical debility. The accommodation for visitors is plentiful, and moderate in price.

Ben Rhydding.—This romantically situated spa is close to the village of Ilkley, about an hour's journey by rail from Leeds. The air is keen and bracing, and baths of every description, air, vapour, Turkish, &c., can be had. There are numerous pleasant walks, and any number of excursions can be made; one of the most interesting being to the far-famed Bolton Abbey, situated five miles from Ben Rhydding. Hotel and lodging accommodation are moderate.

Leamington. — This pretty and fashionable watering-place is situated in Warwickshire, and in the immediate neighbourhood of Warwick Castle, Kenilworth, and the battle-field of Edgehill; and Stratford-on-Avon, the birthplace of the immortal Shakspeare, is at an easy distance. There are twelve mineral springs, saline, sulphurous, and chalybeate, and they are used both externally and internally. The climate is fine during the summer months, but cold in winter. There are numerous baths, and good lodgings in abundance.

Scottish Mineral Spas.—The Bridge of Allan.—In point of position, the Bridge of Allan may be placed at the head of the Scottish spas. It is situated nearly equidistant from Edinburgh and Glasgow, occupying a very picturesque position near to the Ochil Hills, with the ancient town of Stirling and its majestically situated castle close in front, the classic field of Bannockburn within half an hour's drive, the episcopal city of Dumblane, with its cathedral, about the same distance in the opposite direction; the ruins of the ancient abbey of Cambuskenneth, and walks and drives in infinite variety. Excursions from the Bridge of Allan to the world-renowned Trossachs can be made daily. The climate is mild and equable, and the mineral waters at Airthrey, in the neighbourhood, are beneficial in pulmonary complaints and affections of the skin. There are plenty of lodgings, and abundance of angling in the river Allan, the Forth, and the Teith.

Innerleithen.—This prettily placed village lies in the county of Peebles, about six miles from that town, and twenty-seven from Edinburgh. Innerleithen is the original of Scott's "St. Ronan's Well;" and here the famous "Meg Dods" had her supposed abode at the "Cleikum Inn." Near Innerleithen is situated the estate of Glenormiston, the property of Mr. William Chambers, the well-known publisher. The mineral springs have the same medicinal properties as those of Airthrey above described, and lodgings are moderate. Close to Peebles are the ruins of Neidpath Castle, romantically situated on the banks of the Tweed, and in the vicinity is the scenery described in Scott's novel of the "Black Dwarf."

Moffat.—This pretty village lies in the county of Dumfries, about sixty miles from Edinburgh and sixty-five from Glasgow. The air is pure and bracing, and there is a great variety of walks and drives. Lake, burn, and river fishing can be had in abundance and without requiring any permission. Fresh and mineral water baths can be had in the village, and there is a sulphurous spring at Moffat Well, about one mile and a half distant. Hotel and lodging accommodation is excellent.

Pitkeathly Wells or Bridge of Earn, is situated a few miles from Perth, on the banks of the Earn, and is celebrated for its mineral waters, which are saline, mixed with carbonic acid gas, and remedial in cases of plethora, disorders of the liver, &c. In the neighbourhood is Moncrieff Hill, upwards of 750 feet in height, and commanding an extensive view from its summit. There is a tulip tree at Pitkeathly, said to be upwards of 100 years

old. There is capital fishing in the Earn, and lodgings are moderate.

STRATHPEFFER. — This fashionable spa is in the county of Ross, about five miles from Dingwall, and twenty-three from Inverness. It is chiefly resorted to for its mineral waters, which are strongly charged with sulphureted hydrogen, owing to the bituminous rock from which they spring. Lodgings are rather scarce, but they are comfortable, and the air is bracing.

BALLATER.—This charmingly situated village lies in the county of Aberdeen, and is distant about nine miles from Balmoral Castle, the Highland residence of her Majesty. There are a great number of romantic places near Ballater well worthy of a visit, amongst others the Pass of Ballater; the famous Lochnagar, celebrated by Byron; the Burn of the Vat, a vast chasm; and Loch Cannor, on the margin of which are the ruins of a hunting seat of Malcolm Canmore. There are chalybeate springs two miles from Ballater, the waters being efficacious in ailments of the blood; and plenty of lodging accommodation.

The Game of Racquet.—This game is played in a regular court, either open or close. The area of the court ought to be about 80 by 40 feet, the front wall should be 30 feet in height, the back about 12 feet; and if the court is closed in, the roof must be well supplied with skylights. The best material for the walls is brick, plastered evenly in order to be true, and covered with a good coat of black paint. The entrance door is in the back wall, in which any position will be suitable, but the door ought to be flush with the wall. A gallery for spectators is sometimes placed over the back wall, but it must not project into the court. The back wall, to the height of twenty-six inches from the ground, should be covered with wood painted black like the walls. The purpose for which the wood is required is to indicate by the sound where the ball strikes upon it. On the front wall there is also a white line at the height of seven feet nine inches above the floor, which is called the cut line, and this is intended to indicate the point above which the ball must be made to strike the wall when the player first goes in. The back part of the floor of the court is subdivided into two equal oblong spaces, into one of which the ball must be served, according to the court from which the man "in" is serving from, and at each of the side walls about the middle are two spaces, 8 by 6 feet in dimensions, which are the service spaces.

THE IMPLEMENTS FOR THE GAME are the racquet bat and the ball. The racquet bat consists of an oval frame, of a certain regulation size, to which there is a long handle, the oval portion of it—by which the ball is to be struck—is crossed by catgut very tightly drawn, so as to render it highly elastic. The ball is made very hard and covered with leather.

THE RULES.—1. The game is 15 up. At 13 all the game may be set to 5, and at 14 all to 3, provided this be done before another ball is struck. 2. The going in first is to be decided by lot. 3. The ball is to be served alternately right or left at the option of the player. 4. In serving, the server must have one foot in the space marked for that purpose. 5. The ball must be made to strike the front wall above the line, and it must strike the floor within the lines enclosing the court on the side opposite to that in which the server stands. 6. A ball served below the line on the front wall is a fault, but it may be taken, in which case the ace must be played out. 7. In serving, the ball must not strike anywhere before it strikes the front wall; if it does so it is a hand out. 8. In serving, if a ball touch the server or his partner before it has bounded twice, it is a hand out. 9. It is considered to be a hand out if any of the following things occur, viz.: — If the server be not in his right place; if the ball be not served over the line; if the ball do not fall in the proper court; if the ball touch

the roof; if the ball touch the gallery netting, posts, or cushions. 10. Two faults in succession put a hand out. 11. An out-player may not take a ball served to his partner. 12. The out-players may change their courts only once in each game. 13. If a ball hit the striker's adversary above or upon the knee it is a let; if below the knee —or if it hit the striker himself or his partner—it counts against the striker. 14. If a player purposely stop a ball before the second bound it counts against him. 15. Till a ball has been touched, or has bounded twice, the player and his partner may strike it as often as they please. 16. Every player should get out of the way as much as possible. 17. After the service, if a ball goes out of the court or hits the roof, it is an ace; if it hits the gallery netting, post, or cushions in returning from the front wall, it is a let; if it hit the roof before striking the front wall it counts against the striker. 18. The marker's decision is to be final, but if he cannot decide, the ace is to be played over again.

The Tomato, or love-apple, the *Solanum lycopersicum* of the botanist, is a tender annual, a native of South America, and was introduced to this country about 1596. The fruit is smooth, compressed at both ends, with strongly marked and pulpy ribs. It is acid in flavour when ripe, and is used in soups and sauces, the juice being preserved for winter use like ketchup as a general sauce for meat and fish. In confectionery it is used as a preserve, and when green as a pickle. The large and small cherry and pear-shaped red, and the large and small or cherry-shaped yellow, are the most commonly used sorts; the first for ordinary culinary purposes, and the second for variety of the fruit. One ounce of seed will produce about sixty plants, and it should be sown on a hotbed about the end of March or the beginning of April. When about two inches in height the young plants should be pricked out either on another hotbed about three inches apart each way, or into single small pots and placed in heat, either in a frame or forcing-house, care being taken to keep them near the glass, as such a position encourages a robust habit of growth. About the middle or end of May they may be planted out, with a good ball of earth in a border with a full south aspect. The tomato is a voracious feeder, and the soil in which they are planted should be well manured with decayed manure. When planted give water, and should the nights be cold, cover the plants with inverted flower-pots or hand-glasses. The plants may be trained to stakes or nailed to a wall, or allowed to ramble over the surface of the soil like cucumbers. To facilitate the ripening process in autumn, the leaves which shade the fruit from the direct influence of the sun ought to be removed. Tomatoes do not seem to be so generally appreciated in England as they are abroad, particularly in America, where they are grown in every garden and seen on every table. A favourite dish for breakfast is a—

Tomato Salad.—Peel half a dozen ripe tomatoes, slice them into a glass bowl, add two pickled onions minced up, or a dessertspoonful of the vinegar from pickled onions, a dessertspoonful of Chili vinegar, a tablespoonful of common vinegar, and three tablespoonfuls of salad oil, with a dessertspoonful of powdered sugar; pour over the tomatoes, and let them lie for ten minutes.

Preserved Tomatoes.—Peel ripe and fresh tomatoes, season with salt and pepper as for immediate eating; put them in bottles or tin cans; cork them up, make a small hole in the centre of the corks; put them in a pot of cold water, and set it over the fire and boil for twenty minutes; take them up and cork and seal them, and keep in a cool place. They should not be opened while the weather is hot.

Sweet Green Tomato Pickle.—Peel and slice two gallons of green tomatoes, five tablespoonfuls of ground mustard, half a pint of mustard seed, two tablespoonfuls of ground cinna-

mon, one tablespoonful of cloves, one pound of brown sugar, three quarts of vinegar. Boil all together until quite done. Celery tops or celery seeds improve the flavour. They are excellent prepared in this way.

Tomato Sauce, to Keep.—Take six pounds of ripe tomatoes, crush them, and sprinkle with salt; let them remain a day or two, then boil and pass through a coarse sieve or colander. Put into the liquor half a teaspoonful of Cayenne and a dessertspoonful each of cloves, pepper, ginger, and cinnamon; boil it one-third away, and bottle tight. It should be shaken before being used.

Baked Tomatoes.—The most simple, easy, and certainly one of the most delicious modes of cooking tomatoes is to slice them when ripe, put them with a little butter, pepper, and salt, in a dish or plate, and cook them before the fire or in the oven. When done, put a poached egg or two on the top, and you have a dish fit for an emperor.

Aids to Memory.—The common colloquial term for mnemonics is "artificial memory;" but a less exact term could not be used. There are such things as artificial teeth, eyes, and limbs, but we can no more have an artificial memory than an artificial imagination or conscience. At best we can only construct a system of aids to memory, by the use of which we may be enabled to recollect facts that, without such aids, we might readily forget. In all countries certain expedients are made use of to help memory, and among those most commonly resorted to are tying a knot on one's handkerchief, tying a string or thread round the finger, &c. It often happens that the best way to arrange a number of facts to which we require to make daily reference is to throw them into a metrical form, as has been done with the days of the months in the famous rhyme beginning, "Thirty days hath September." This rhyme, which, estimated with respect to its poetical merits, is mere doggerel, may be considered more valuable than the finest verse Tennyson ever penned. By means of it millions of people have been saved the trouble of consulting an almanack or other work giving the number of days in each month. What has been done once may be done again, and we do not see any reason why any similar series of facts of universal importance should not be arranged in the same way and recalled quite as promptly. The man who keeps a daily record of his actions, aims, &c., in the shape of a diary or a commonplace-book, runs less chance of forgetting anything he may wish to remember than one who keeps no such record. But notes are such well-known aids to memory that we need do no more than merely mention them here.

Many different systems of mnemonics have been framed, but it is very doubtful whether they have ever proved of much practical use to any but their framers. All of them are complicated and difficult to master; indeed, beyond a few general principles, which it is well to know, we cannot understand how they can give much aid to memory. In most instances it would appear that the inventors of these systems are simply to be considered as the victims of mere crotchets and chimeras. Grey, Beneowski, and Finaigle, invented systems, but the world has not benefited from their ingenuity, and the labour of committing to memory is as great at the present day as it would have been had these *savans* never lived. To explain what these systems were would carry us beyond our limits, and we shall only mention that Grey's method of learning and remembering historical and other dates consisted in having letter-symbols for the numerals. Out of these letter-symbols words were made, and the student had only to recollect the numerals that were represented by the letter-symbols in order to recall the date of the event to which the word referred.

But it is to a writer and thinker of later date than the philosophers we have named, that we are indebted for the most valuable aids to memory yet known. It was left for Dr. Pick to observe that we remember some things

more easily than others, and that the things most readily remembered were those to which we were guided by some association of ideas.

This association of ideas is the basis of Pick's system of aids to memory. If in a list of words the mind is led on from one word to another by some idea that forms an association or connecting link between the two, the whole list will be committed to memory by the mere reading of it over once or twice. In the following list the reader will at once perceive the association that links one word to another, and will understand the readiness with which it can be committed to memory:—England, navigation, steam, railway, telegraph, electricity, thunder, storm, wind, pipe, music, harmony, alliance, peace, tranquillity, meditation. A list of say forty words, between which there are associating ideas as in the case of the list just given, could be committed to memory in a minute or two.

Carrying out this principle, Dr. Pick has invented a method of teaching German and French which seems to be exceedingly easy. Lists of foreign words can be remembered almost as easily as the list given above if they are so arranged as to exhibit a chain of associated ideas, and Dr. Pick arranges his vocabularies, groups of regular and irregular verbs, &c., with this view. By attending to this principle any person of average powers of mind can be trained to perform what may be called surprising feats of memory; but it must, however, be borne in mind that diligent study and constant practice are indispensable.

For a full exposition of Dr. Pick's system we refer the reader to his treatise on "Memory," and to his other works.

Dyspepsia, or Indigestion.—There is perhaps no complaint that more universally afflicts the civilized portion of mankind than this. It is found attacking the poor needlewoman, living in a garret, whose diet chiefly consists of large quantities of weak tea, and bread and butter. It attacks the rich man, fond of the pleasures of the table, who gives his stomach more work than it can do, and who eventually pays a heavy price for his enjoyments; and it attacks the literary and scientific man, whose habits are sedentary, whose brain is overworked, and who frequently neglects to supply to his stomach a sufficiency of food with the regularity necessary for the due maintenance of health.

The more immediate causes of dyspepsia are the use of food in too large quantities, and of an indigestible nature; irregularity in the meal hours; imperfect mastication from being in a hurry, from carelessness, or from bad teeth; want of regular exercise; mental anxiety, and the excessive use of spirituous liquors and tobacco. With regard to the quantity of food, the caution of Socrates should be remembered:—"Beware of such food as persuades a man, though he be not hungry, to eat, and those liquors that will prevail with a man to drink them when he is not thirsty."

The symptoms of an attack of dyspepsia vary much both in their nature and intensity. The first thing generally complained of is want of appetite, with nausea, flatulence, heartburn, and occasional pain in the stomach, a sense of fulness and oppression after eating, with languor and depression of spirits. In the more severe cases the pain in the stomach is considerable, and is increased by pressure and by food, the latter even in small quantities sometimes producing acute pain followed by vomiting. There is foulness of the tongue and breath, palpitation of the heart, costiveness or diarrhœa, and vomiting of a thin, sour fluid that sets the teeth on edge.

The mental effects produced by dyspepsia vary from the slight unpleasant feeling known as "being out of sorts," to the graver and more serious state called hypochondriasis, in which the patient may show the most extreme melancholy, even amounting to a disposition to commit suicide. It is often seen that a morbidly particular attention is paid by the patient to the state of his own health; he exaggerates his

symptoms, and takes a very desponding view of his case, and of the state of his affairs generally. Indeed, shrewd men of business have been known to have made such ridiculous bargains that they could only be accounted for by their being attacked by dyspepsia.

Treatment. — The first thing is to ascertain the cause of the complaint, and above all to obtain the patient's confidence. It must be remembered that this is a malady that in the first place affects the stomach, and afterwards, through that organ, the constitution generally; the treatment must therefore be directed in the first place to improve the state of the stomach, and in the second, that of the general health. As a man has it in his power to keep his stomach in a healthy condition, if he will only be careful of what he puts into it, our first consideration is "diet." Simplicity in diet is to be commended; at the same time it must be borne in mind that man, being omnivorous, requires a mixed diet.

The following is a scale of diet for dyspeptic people, taken from the work of an eminent physician: *—

7 a.m. A tumblerful of equal parts of spring water and soda or lime water.

7.30 a.m. To rise from bed. Use a tepid or cold sponge bath, rub the skin with a coarse towel. Dress leisurely.

8.30 a.m. *Breakfast.*—A large cup of weak tea with half milk, or milk and water, sole or whiting, or the lean of an underdone chop, or a new-laid egg lightly boiled, stale bread, and a little butter.

1 p.m. *Luncheon.*—Oysters, if they agree, or an underdone mutton chop, or a slice of roast mutton, a biscuit or stale bread, one glass of dry sherry.

6 p.m. *Dinner.*—Codfish, sole, turbot, whiting, or brill; mutton, venison, chicken, grouse, partridge, hare, pheasant, tripe boiled in milk, sweetbread, boiled leg of lamb or roast beef, stale bread, cauliflower, asparagus, vegetable marrow, French beans, potato or sea-kale. Half a wineglassful of cognac in a bottle of soda water, or two glasses of good dry sherry or claret after dinner.

9 p.m. A small glass of cold brandy and water with a biscuit, or a cup of weak tea with half milk, and a slice of bread and butter, or a teacupful of arrowroot.

11 p.m. *Bed.*—To sleep on a mattress without too much covering; the room to be properly ventilated; a fire will be beneficial in cold weather. It is presumed that a good night's rest has been earned by a fair amount of exercise in the open air.

To improve the general health, rest and mental relaxation should, if possible, be obtained. Change of air and sea bathing (when it agrees) will be found useful. Cheerful society and a moderate amount of exercise will often do more than medicine. Amongst the latter all the different varieties of tonics have been recommended according to the state of the case; but pepsine, the digestive principle of the gastric juice, will be found most useful in a weak condition of the stomach. Great attention should be paid to the regularity of the bowels, and methodical habits ought to be encouraged.

Tinctures.—These are valuable medicinal preparations, and all the more so that they are capable of being long kept without undergoing deterioration. They consist of solutions chiefly of vegetable substances in rectified spirits, and can be supplied for the domestic medicine chest by the apothecary, to the saving of considerable trouble. We shall, however, lay before our readers some prescriptions for such tinctures as are most useful, and state the purposes to which they are applicable.

Bitter Tincture for Indigestion and Biliousness, &c.—Gentian root cut, two ounces; orange peel dried, one ounce; cardamom seeds bruised, half an ounce; proof spirit, two pints. Macerate a fortnight, and filter the liquor. This will be found a valuable tincture in general debility and the particular ailments above mentioned.

* "Practice of Medicine," by T. H. Tanner, M.D.

It is known to the druggist as the compound tincture of gentian.

Aromatic Tincture for Gout, Flatulency, and Languor. — This preparation is compounded with cardamom seeds, cinnamon bark, long pepper, ginger root, macerated in proof spirit. It is of much benefit in the ailments above referred to. The dose is from one to two teaspoonfuls. This medicine is known as the compound tincture of cinnamon.

Purgative Tincture for Flatulence, Pains, Gout, &c. — Senna leaves, three ounces; carraway seeds bruised, three drachms; cardamom seeds bruised, one drachm; raisins stoned, four ounces; brandy, two pints. Macerate fourteen days, and filter. Dose, one, two, or three tablespoonfuls. This preparation is equal in efficacy to the tincture long known and celebrated as Daffy's Elixir.

Tincture of Rhubarb for Indigestion, &c.—Rhubarb root sliced, two ounces; cardamoms bruised, an ounce and a half; saffron, two drachms; proof spirit, two pints. Macerate a fortnight in a gentle heat, and filter. This tincture, combined with equal quantities of the tincture of senna or tincture of aloes, is a medicine of great value in indigestion, depression, and constipation, occurring in conjunction with debility.

Purgative Pills.—Compound extract of colocynth, compound rhubarb pill, of each half a drachm; calomel, twelve grains; oil of carraway, five drops; syrup to make the whole into a mass. To be divided into fifteen pills. These are excellent in fevers, inflammation, and all cases where such purgatives are required.

Mild Laxative Pills.—Compound extract of colocynth, half a drachm; compound rhubarb pill, one scruple; Castile soap, ten grains; oil of juniper, five drops; formed into a mass, and divided into twelve pills. One to be taken at bedtime. These pills are mild aperients, and well suited for occasional use in constipation and bilious affections.

Pills for the Stomach.—Rhubarb in powder, two scruples; ipecacuanha in powder, twenty-four grains; Castile soap, two scruples; syrup of orange peel to form the whole into a suitable mass. To be divided into two dozen of pills; one to be taken thrice a day. These pills give tone to the stomach in indigestion and bilious affections, and are highly beneficial in sick headache, nausea, defective appetite, and stomach cough.

Pills to Aid Digestion. — Socotorine aloes, forty grains, and gum mastic, eighteen grains, rubbed well together; compound extract of gentian and compound galbanum pill, of each twenty-four grains; oil of aniseed sufficient to form the mass. Divide into twenty pills. These are excellent pills. Two may be taken an hour before dinner, or at night. They act mildly.

Cookery for Invalids.—

Porter Jelly.—Boil a cow-heel to a jelly; to one quart of this jelly add a bottle of the best porter, with the rind and juice of four lemons, one pound of white sugar, and the yolks, whites, and shells of five eggs beaten together; let them just come to a boil, and then strain through a flannel jelly bag. It should look clear, and is very nice and strengthening for an invalid.

Veal Sherbet. — Wash a good knuckle of veal, put it to boil in nine pints of water. Let it boil until reduced to two pints. Run it through a fine sieve, and when nearly cold, add to it two pints of clarified syrup, and a pint and a half of clear lemon juice. Mix well, and serve as refreshment. It will be found very nutritious as well as pleasant.

Tapioca and Cod Liver Jelly.—Boil a quarter of a pound of tapioca till tender in two quarts of water; drain it into a colander, and then replace it in the stewpan. Add half a pint of milk, and about one pound of fresh cod liver, cut into a dozen pieces. Simmer slowly for fully half an hour, until the liver is quite cooked. Press out the liver as much as possible into the tapioca; take away the liver, and mix the tapioca

If too thick, add a few spoonsful of milk, and boil for a few minutes; stir well, add a little pepper and salt, and serve. Tapioca cooked in this manner is nourishing, and peculiarly suited for invalids.

Iceland Moss Jelly.—Put one ounce of Iceland moss, and one ounce of Carrageen or Irish moss into a stew-pan; add a pint and a half of milk, boil slowly for three quarters of an hour; strain through muslin; add three ounces of white sugar, dissolved in one ounce of the compound tincture of quinia, which can be had at any chemist's. Take a dessert spoonful several times a day. This is much esteemed as a remedy in certain stages of consumption, &c.

Isinglass Blancmange.—In a pint of boiling milk dissolve an ounce of isinglass; the mixture can be flavoured with lemon peel, bitter almonds, &c. It will make an excellent blancmange for an invalid or convalescent.

To Clean Sheepskin Rugs or Mats.—Make a very strong lather, by boiling soap in a little lather, mix this with a sufficient quantity of water (rather more than lukewarm), to wash the mat or rug in, and rub boiled soap on those portions of it which require additional cleansing. When the mat has been well washed in this water, prepare another lather in the same way, in which a second washing must take place, followed by a third, which ought to be sufficient to cleanse it thoroughly. Rinse it well in cold water until all the soap is removed, and then put it in water in which a little blue has been mixed, sufficient to keep the wool of a good white, and prevent its inclining to yellow. After this it should be thoroughly wrung, shaken, and hung out in the open air with the skin part towards the sun, but not while it is scorching, otherwise the skin will become hard. It must also be shaken often while drying, for if not it will be quite stiff and crackly. It should be frequently turned, being hung up first by one end and then by the other, until it has dried entirely.

How to Clean Ostrich Feathers.—Cut some white curd soap in small pieces, pour boiling water on them, and add a little pearlash. When the soap is quite dissolved, and the mixture cool enough for the hand to bear, plunge the feathers into it, draw the feathers through the hand till the dirt appears squeezed out of them, pass them through a clean lather with some blue in it, then rinse in cold water with blue to give them a good colour. Beat them against the hand to shake off the water, and dry by shaking them near a fire. When perfectly dry, curl each fibre separately with a blunt knife or ivory paper-folder.

To Clean Grebe.—Carefully take out the lining, and wash it in the same way as directed for the ostrich feathers. They must not be shaken until quite dry, and any rent in the skin must be repaired before making up again.

To Wash Hair Brushes.—Fill a pan with warm water, and dissolve in it a quarter of an ounce of soda to half a gallon of water. Comb out the loose hairs; take one brush at a time by the handle and dip it several times in the water without wetting the back; then rinse in cold water, and put near the fire or in the open air to dry. Never use soap in washing hair brushes, or allow the water to be more than lukewarm, as hot water will soften the bristles and melt the glue in the back, and also turn ivory backs yellow.

The Conundrum, or Enigma.—This is a form of expression intended to denote in an obscure and ambiguous manner something that is well known and familiar. An enigma may be delivered in words, in paintings, or in sculpture; and of the last two of these modes the hieroglyphs of ancient Egypt, the forms attributed to the deities of the classic mythology, and many of the figures of modern idolatry in India and China, may be cited as examples; in all which, more or less, some principle or truth is denoted by a combination of real or

fabulous forms. The verbal enigma has in all ages and countries, from very remote times, been popular in proportion to the degree of wit and art it exhibits. In the Middle Ages the art of composing riddles was much cultivated, as affording amusement; and in modern times the genius of the Germans has contributed much to confer on the conundrum a high degree of literary merit. There are numerous collections of conundrums in various languages, to which our readers can have recourse, and attention to which will go far to facilitate the making of others, should their time or inclination enable any of them to seek amusement in that species of composition. The celebrated periodicals known as *Punch* and *Fun* contain many extremely clever instances of this mode of writing, which doubtless are familiar to our readers. We give the following as illustrations of the conundrum:—

Q. What did the Duke of Wellington do with his boots when he wore them out?

A. Wore them home again.

Q. Why are little birds depressed early on a summer morning?

A. Because their little bills are all over dew (due).

Q. What creature left the ark in the most respectable manner?

A. The spider, for as he stepped out he walked into a fly.

Q. Why should birds in their nests agree?

A. Because if they did not they would fall out.

Q. What train should a dull boy travel by?

A. The Brighton up train.

We shall now mention only one conundrum more, which possesses the distinction of not being found in either of the two witty periodicals above referred to, but which perhaps our readers will not find any great difficulty in interpreting, and it will serve at the same time as an illustration of the nature of composition now under discussion:—

Q. What English county is it whose name is permanently associated with every production of superlative excellence?

A. Kent; because *Kent* undoubtedly produces the "Best of Everything."

The Guinea-pig.—This little animal, although called by the name of "pig," is in no way whatever related to the family to which the wild boar and the domestic hog belong. It is, on the contrary, comprehended in the order *Rodentia*, along with mice, rats, squirrels, and the various kinds of animals remarkable, as the name of the order implies, for their habits of gnawing. The guinea-pig is a native of Brazil and Paraguay, where it is found wild; and there are various species of the same animal. When domesticated in this country, it very much resembles the rabbit, although it is smaller in size. It is frequently marked with irregular patches of black, white, and orange. The ears are round and almost naked, the feet are short, and there is no tail. It is a very cleanly animal, and the male and female spend much of their time in licking and smoothing each other's fur. It breeds at two months old, and brings forth from four to twelve young ones at a time. It is a pretty little animal, but can hardly be said to make a desirable pet, as it seems entirely devoid of attachment. In order to keep the little creature in comfort, the chief object, besides that of furnishing it with appropriate food, is to keep it scrupulously clean,—an object which its own instinctive habits ought to suggest to its owner.

The Aviary.—Strictly speaking, an aviary is a considerable space fitted up and adapted to accommodate a large number and variety of birds remarkable for their singing qualities, the beauty of their plumage, or other peculiarities. An aviary, as a matter of course, is a large cage in which an attempt is made to give a natural appearance to the interior of the place where the feathered prisoners are confined. Perches resembling the branches of trees, grass, moss, various plants, patches of gravel or sand, a rill of clear water, secluded places for nests—in a

word, everything is provided that the birds can require short of liberty; which, indeed, in a climate like ours, and in the absence of those natural supplies so easily obtained in their native places, would be a more than doubtful blessing to many of them, inasmuch as no foreign species would long survive emancipation.

In a large aviary possessed of all such appliances as we have adverted to, favourably situated and carefully attended, most of the little captives will thrive and be cheerful, and many of them will build and bring up their young. Such establishments, however, are rare; and it may be doubted whether the expense, trouble, and anxiety inseparable from the keeping of them, are not too great for any satisfaction which they produce. This, however, is a matter of opinion.

It will be more suitable if we understand by the term "aviary" any collection of birds occupying one or more cages. The birds usually domesticated with us are canaries, goldfinches, linnets, larks, bullfinches, thrushes, blackbirds, and starlings. All these are more or less esteemed for their qualities as singers; but in addition to them there are numerous foreign birds whose beauty of plumage and rarity gives them value, such as the various species of parrots, parroquets, love-birds, the cockatoo, the macaw, and many others. All such birds require certain kinds of food, without which they cannot thrive; and care must be taken that such food is supplied to them; that their cages are kept scrupulously clean, and that they have plenty of pure water and pure air.

Canaries were originally brought from the islands by whose name they are known, and have long been domesticated in every country in Europe. In its native groves the plumage of this bird is of a dusky grey, but domestication has caused much alteration in this respect. Some canaries are white, or nearly so; some mottled; some possessed of greenish plumage, and others bright yellow. The canary has a shrill and high-pitched voice, capable of much modulation, and it apparently has great enjoyment in pouring forth its melody. Comparing this pretty bird with the nightingale, Buffon makes the following remarks, which are not unworthy of the eloquent naturalist:—"If the nightingale be the chantress of the woods, the canary is the musician of the chamber: the first owes all to nature; the second somothing to art. With less strength of organ, less compass of note, the canary has a better ear, greater facility of imitation, and a more retentive memory; and as the difference of genius, especially among the lower animals, depends in a great measure on the perfection of their senses, the canary, whose organ of hearing is more susceptible of receiving and retaining foreign impressions, becomes more social, tame, and familiar; is capable of gratitude, and even attachment; its caresses are endearing, its little humours innocent, and its anger neither hurts nor offends. Its education is easy; we rear it with pleasure, because we are able to instruct it. It leaves the melody of its own natural note to listen to that of our voices and instruments. It applauds, it accompanies us, and repays the pleasure it receives with interest; while the nightingale, proud of its talent, seems desirous of preserving it in all its purity,—at least seems to attach very little value to ours, and with great difficulty can be taught any of our airs. The canary can speak and whistle; the nightingale despises our words as well as our airs, and never fails to return to its own wild wood-notes. Its pipe is a masterpiece of nature, which human art can neither alter nor improve; while that of the canary is made of more pliant materials, which we can model at pleasure, and therefore it contributes in a much greater degree to the comforts of society. It sings at all seasons, cheers us in the dullest weather, and adds to our happiness by amusing the young and delighting the recluse."

The canary, being a native of a warm climate, could not exist if exposed to the rigour of our winter weather, even

if it could obtain suitable food, which would be impracticable. It requires, therefore, in winter, the warm temperature of a room artificially heated, as well as a suitable supply of the required nutriment. If the apartment the canary is kept in be too warm, the bird will moult at an improper season; and in rooms in which gas is burnt and where the ceilings are low, and the cages hung up near them, there is often a great mortality among the birds, which fall suddenly dead from their perches without having exhibited any symptoms of previous illness. The immediate cause of this is not perhaps clearly understood; but beyond doubt it is the unwholesome state of the air, for near the ceiling, in apartments where gas is consumed, the air is not only very warm, but is to a great extent rendered incapable of sustaining life by being almost wholly deprived of its oxygen.

Much attention ought to be given by those who keep canaries to the cleanliness of the cage. A supply of fine sand ought always to be given, and fresh water ought to be given at least once a day. Besides the seed which the bird chiefly feeds on, he ought to get some green food, such as groundsel, chickweed, &c., all of which are wholesome.

Breeding of Canaries. — This affords much interest and amusement. The cage ought to be large, and at the upper part of it, at one end, open boxes should be placed for the nests; or they may be made close, and furnished with holes, by which the birds may enter and leave the nests at their pleasure. A small net ought to be hung in the cage near one of the perches, containing materials for nest-making, such as moss, wool, cotton, hair, and a few small feathers. The hen canary builds the little abode for the expected progeny, and lays her first egg ten days after pairing. Six is the usual number laid. Each egg ought to be removed as it is laid, and one of bone or ivory substituted for it; and when the laying is completed they can be all replaced. The canary sits thirteen days. When the young birds appear, hard-boiled egg and bread finely minced and mixed together, ought to be placed in the feeding trough, in order that the parent birds may supply the wants of their offspring.

Mules are cross-breeds between the canary and some of the finches with which the canary mates, and some of these mules are very desirable inmates of the aviary.

Goldfinches, siskins, and other birds nearly allied to the canary, will thrive in the aviary with much of the same attention as is bestowed on their more delicate relative. In addition, however, to the common canary seed, hemp seed and rape seed may be given; goldfinches and siskins, indeed, prefer poppy seed, and linnets and bullfinches like the rape seed alone. As already mentioned in the case of canaries, green food is desirable for these and all other birds, and not only groundsel and chickweed may be given them, but lettuce, watercresses, and cabbage leaves. Plenty of fresh water should be supplied, both for washing themselves and for drinking, and abundance of fine sand, as this is requisite to their digestion, and of great use as a sand bath for cleansing their skins and removing insects, which are often troublesome and injurious.

German Pastes for Birds.—Cheap and simple food in the form of paste may be made in the following manner:—Take a white loaf which is well baked and stale, put it into fresh water till it is quite soaked through; then squeeze out the water, and pour boiled milk over the loaf, adding about two-thirds the quantity of barley meal, from which the bran has been carefully sifted, or, what is still better, wheatmeal. Another method, however, may be adopted. Grate a carrot very nicely, soak a small white loaf in fresh water, press the water out of it, put it along with the carrot into an earthen pan, add handfuls of barley or wheaten meal, and mix the whole together with a pestle. These pastes ought to be made fresh every morning,

for they quickly become sour, and are consequently injurious to the birds. A feeding trough ought to be used, in which the paste can be put; and this vessel will be more suitable if made of tin, earthenware, china, or glass, rather than of wood, as it can be more readily kept perfectly sweet and clean, and will therefore be less liable to cause the food placed in it to become sour or stale.

The Bavarian Mode of Preserving Rennet.—This mode of curing consists in turning out the contents of the skin of the stomach, wiping off all specks or dirt with a cloth, and then blowing up the skin or filling it with air like a bladder. The ends are tied with a string, and a little salt applied to this part only. The skin treated in this way soon dries perfectly, and is as sweet and clean as can be desired. Salt neutralizes in some degree the action of rennet, therefore rennets treated on the Bavarian plan are much more effective than those cured in the old way. When the rennets cured on this plan are dry, the air may be expelled and the skins can be packed away in a small space, and are easily kept clear of insects. The defect in salted rennets is that the salt in wet weather accumulates dampness, and if care is not taken to keep them in a dry place, they drip, and thus lose their strength. Rennets preserved on the Bavarian plan are stronger as well as sweeter than any others.

To Make Queen Cakes.—Wash and dry carefully half a pound of good currants, whisk three eggs to a froth, beat half a pound of fresh butter to a cream; add the currants, the eggs, one pound of best flour, and half a pound of powdered sugar to the beaten butter, with one teaspoonful of carbonate of soda, and the grated rind of a lemon. Beat all these ingredients well together, and just before putting them into the tins, add a teaspoonful of lemon juice, butter the tins, which are usually heart-shaped, put a few currants on the top, and bake the cakes for twenty minutes in a quick oven.

Scotch Oat Cakes.—Put three handfuls of best Scotch oatmeal into a basin, with a bit of butter the size of a nutmeg; add as much cold water as will form it into a cake. Press the cake out with the hands until it is thin, then roll with the rolling pin, till it is almost as thin as a crown piece. Have the girdle ready heated, sift a little meal over it, and lay on the cake. When the under side is brown, toast the upper side in a toaster before the fire to make it crisp. These cakes should be kept in the meal chest among the dry meal to preserve their crispness, which is their peculiarity. They are extremely nice to eat with cheese.

To Remove Wax Stains from Silk.—Mix powdered French chalk with lavender water to the thickness of mustard. Put it on the stain, and rub it gently with the finger or palm of the hand. Put a sheet of clean blotting paper and brown paper over it, and smooth it with a warm iron. When dry the chalk must be removed, and the silk gently dusted with a white handkerchief. If a faint mark still remains, a second application of French chalk and lavender water will generally remove it. If the wax stain has fallen thickly on the silk, it should be removed first carefully with a penknife.

Annuities.—These are sums of money which one party is under an obligation to pay to another, and which may under express agreement be paid for the lifetime of the receiver, or for a certain number of years, or may be deferred so as to commence at a certain future period; or the payment of which may be associated with any conditions on which the parties concerned may agree, or the obligant himself shall consider suitable. It must be obvious therefore that the nature of annuities admits of very great variety, and that they are based on several elements requiring careful and elaborate calculation.

Independently of any special considerations which the particular nature of an annuity may render necessary—

and which considerations are variable, —there are two elements which must under all circumstances be taken into view, viz., first, the statistics relating to the duration of human life; and second, the interest of money. The computations connected with these two most important elements demand great skill and much labour, and are in several respects so elaborate that the processes are quite beyond the reach of ordinary persons, and the results must be received on the authority of others by probably ninety-nine out a hundred of those interested in the subject.

Tables of a complicated character have been prepared to facilitate the calculation of annuities. These tables are perfectly trustworthy, and are adopted by Government and the savings banks as the basis on which annuities can be purchased. Full information can be obtained on this important subject at the Government savings banks, or the assurance office.

It will be sufficient to satisfy the reader who inquires into the subject to present him with the following table, which exhibits the value of an annuity of one pound, payable at the end of the first year, and afterwards annually for life:—

Value of an annuity of £1.

Age.				Age.			
5...	£16	11	9½	45...	£12	12	11½
10...	16	13	4½	50...	11	14	2½
15...	16	4	6½	55...	10	7	11½
20...	15	16	4½	60...	8	18	9½
25...	15	6	1	65...	7	17	3¾
30...	14	14	5	70...	6	6	8½
35...	14	2	6½	75...	4	19	9½
40...	13	7	9½	80...	4	2	10¾

Addresses of Letters.—Be careful in placing your letter in the proper envelope. Most of our readers have doubtless heard of the well-known story of the manager of a company of players, who, in addressing a letter to the chief magistrate of a royal borough soliciting his patronage, placed by accident in the envelope a letter which had been used the night previously in the performance of the play. It began, "Sir,—There is a plot formed to rob your house and to cut your throat this night. The gang whereof I am one," &c. The letter, though bearing another signature, was traced to the manager, who was apprehended, and he was put to much trouble and inconvenience before he could satisfy the magistrate and obtain his liberation. Campbell, the poet, intending to communicate to a friend that he would bring his nephew along with him to dinner at his house, sent the letter in mistake to his nephew, who found himself described as "a red-headed Scotchman."

All gentlemen possessed of landed estate, officers of the army and navy, members of the learned professions, members of Parliament, and graduates of the Universities, are entitled to be addressed *Esquire* or *Esq.* Every clergyman should be designated *Reverend* or *Rev.* An Archdeacon is *The Venerable;* a Dean, *Very Reverend;* a Bishop, *Right Reverend the Lord Bishop of;* and an Archbishop, *Most Reverend the Lord Archbishop of.* A member of the Privy Council is addressed as the *Right Honourable.*

If in addressing your letter you forget the Christian name of the person you are writing to, substitute a random J; it is more respectful than a blank, thus —, which should never be used. Be particular in spelling your correspondent's name in the same manner as he himself does. Keep an address book with the names of your correspondents alphabetically arranged. Never address two or more unmarried ladies as the *Miss Beaumonts*, but as the *Misses Beaumont.* In concluding a letter to a lady, be more ceremonious than if you were writing to a gentleman. Thus, instead of abruptly closing with "Yours faithfully," write thus,—"I am, Madam, or Dear Mrs. or Miss ——, yours faithfully." If your correspondent is residing at the house of another person address thus,—"A. B., Esq., C. D., Esq., 40, Albion Terrace, Ramsgate," or whatever C. D.'s address may be. Do not describe your friend as living "at," or address him "to the care of."

Hints on Home Decoration.—DECALCOMANIE.—Under the heading of Home Decoration we propose to treat of several very easily performed processes, such as Decalcomanie — our present subject — Diaphanie, Wood Carving, &c., by the exercise of which "Home" may be beautified. The degree of affection with which "Home" is regarded depends upon the number of the pleasing associations which cling around the sacred name, and the wisest thing a parent or guardian can do, if he wishes to preserve in the heart of his child or ward that love of "Home" which is a safeguard against so many snares and temptations, is to increase the number and strengthen the attractive influence of such associations to the utmost possible extent. Of the many methods of accomplishing this, the process of Decalcomanie is suggested on account of its value in training all young persons to have a pride in, and a liking for, *the House.*

By the aid of decalcomanie we are enabled to decorate a vast variety of articles most successfully, and it involves only the exercise of taste and attention; while its demands upon the purse are very moderate. The design printed on the paper used for decalcomanie, is first coated over with a specially prepared cement. When the design has become sticky, which it will do in five or ten minutes, it is placed against the vase, or plate, or strip of leather intended to be decorated, and is well pressed down; the design will then adhere. Press the back of the paper with a damp sponge or cloth, and let the work remain for a minute or two. Wet the back of the paper thoroughly, and raise the plain paper with a pair of pincers, or with the hand, and it will come away, leaving *only the coloured design* adhering to the vase or plate. Having transferred the picture from the paper to the vase or plate, the next step is to wash the picture as carefully as possible with water and a camel-hair pencil, and to dry it with a piece of fine linen slightly wetted. The work is then left to dry and harden for at least one day, after which a coat of varnish is applied, and the process is finished. The decorative designs thus obtained are durable, effective, and easy to be transferred, if the directions given are strictly adhered to. Among the objects most suitable for decoration by decalcomanie are tea and coffee services in china or earthenware, dessert services, flower-pots, trinket stands and boxes, candlesticks, lamps, urns and inkstands, white wood articles, slippers, hand-screens, ribbons, articles in ivory, and indeed most ornamental articles, either with flat or convex surfaces, from the panel of a drawing-room down to the tiniest article on a lady's toilet-table.

To make Ratafia.—Add two quarts of proof spirits to the following ingredients:—one ounce of bruised nutmegs; half a pound of bitter almonds, blanched and chopped; one grain of ambergris well rubbed with sugar in a mortar. Let these infuse for fourteen days, and then filter through blotting-paper.

RED RATAFIA.—Take six pounds of the black-heart cherry; one pound of small black cherries; and two pounds of raspberries and strawberries. Bruise the fruit, and when it has stood for some time, drain off the juice, and to every pint add four ounces of the best refined sugar, and a quart of the best brandy. Strain through a jelly-bag, and flavour to taste with half an ounce of cinnamon and a drachm of cloves, bruised and infused in brandy for a fortnight previously; or flavour with cloves only.

How to preserve Geraniums during Winter.—Take the plants out of the pots; trim off the leaves and outer branches, take all the soil from the roots, tie the plants in bunches, and hang them, roots upward, in a dry, dark cupboard, loft, or cellar, where no frost can touch them. In spring re-pot them in a good compost, first carefully cleansing the pots within and without.

To Preserve Apples and Pears.—Apples and pears, when kept in the ordinary manner, are found

to give off carbonic acid gas; while in the interior of the fruit, alcohol and acetic acid are formed. From this fact it has been ascertained that the kind of fruit referred to is best kept by admitting to it a free circulation of air, as far as possible. Fruit kept in closed vessels goes to decay much more rapidly than when exposed to a current of air.

How to keep Grapes.—They must not be too ripe. Take off any imperfect grapes from the bunches. On the bottom of a keg put a layer of bran that has been well dried in an oven, or in the sun. On the bran put a layer of grapes, with bran between the bunches so that they may not be in contact. Proceed in the same way with alternate layers of grapes and bran, till the keg is full; then close the keg so that no air can enter.

To Dry Herbs for Winter Use.—The peculiar aromatic flavour of most herbs is owing to a volatile essential oil which is found in various parts of the plants in minute cells. These cells are perceptible in the peel of the orange, lemon, citron, &c.; and they exist in all plants having perfume, though they are not so easily detected as in the fruits named. This oil is produced in the greatest quantity in dry, warm seasons, and it is best in quality when the plant is in its highest perfection; herbs for winter use ought therefore to be gathered as soon after they reach maturity as possible, always taking care to choose a bright sunny day for the purpose.

To Dry Parsley.—Cut a large basketful of the best looking curled parsley, pick out all faded or dirty leaves, and dry the remainder carefully before a clear fire. At first the leaves will become quite limp, and they must be turned before the fire to expose all parts equally to the heat, until the leaves are dry and brittle, without losing their green colour, for if they are allowed to get brown they are spoiled. When dry, rub them to powder between the hands; sift the powder through a coarse sieve, and bottle it for use; it will retain both the colour and flavour of green parsley. A large basket of fresh leaves will hardly yield a pint of powder. Never dry it in the sun, or it will lose much of its flavour.

To Dry Mint.—This herb does not dry nearly so well as parsley; it loses the bright colour, becomes brown, and also alters in flavour. Dry in the same way as parsley, or the leaves, after being dried, may be bottled whole for flavouring pea-soup, &c.

Thyme, Marjoram, Sage, and Savory, may be also dried in the same way as parsley; but celery, which is so essential a seasoning for all soups, cannot be dried, as the flavouring oil is principally contained in the seeds. A little of the seed tied in a muslin bag, and boiled in soup, gives it a delicious flavour, and a nice essence may be obtained by bruising celery seeds, and steeping them in spirit. The flavour of shallots, chillis, and tarragon is extracted by steeping them in vinegar or white wine. Any of the cheaper French white wines answer for this purpose.

To Preserve Green Peas.—When full grown, but not old, pick and shell the peas. Lay them on dishes or tins in a cool oven, or before a bright fire; do not heap the peas on the dishes, but merely cover them with peas, stir them frequently, and let them dry very gradually. When hard, let them cool, then pack them in stone jars, cover close, and keep them in a very dry place. When required for use, soak them for some hours in cold water, till they look plump before boiling; they are excellent for soup.

A Few Words on Mushrooms.—There is scarcely any vegetable used both as such, and as a means of imparting piquancy to gravies and made dishes, the flavour of which is so universal a favourite as the mushroom and its kindred. It is astonishing that the English have not followed the example of the French, and have not cultivated the mushroom with the same care that they have bestowed on many other vegetables, making them articles of daily use, while the mushroom is both a rare and expensive luxury with

us. Yet few vegetables require less care in the cultivation. They can be raised in quantities on any old hotbed, if it be only sheltered a little from the rain. In Paris they are raised in caves under the city; but they seem to consider them more as a necessity there than we do in England. As the month of September is the season when the field mushrooms are plenty, we shall give our readers a few simple receipts for choosing and cooking them.

To Choose Mushrooms.—Be careful in selecting mushrooms for cooking, as some of the poisonous fungi very closely resemble the true mushroom; but they are easily detected by the smell, which, in the poisonous kind is sickly and unpleasant; the gills also are faint and yellow in colour. The mushroom has a pleasant fragrant smell, and when young the gills are pink and bright; when old, they are brown, or blackish.

To Make Mushroom Ketchup.—Gather the mushrooms in dry weather, take the large, full-grown flaps, and see that they are free from insects and earth. Add to each peck of mushrooms half a pound of salt, break them up into a large earthenware pan, strew the salt over, and let them stand for three days, stirring and mashing them up each day, then strain and squeeze out all the juice. To every quart of juice put half an ounce of whole black pepper, half an ounce of bruised ginger, a quarter of an ounce of allspice, a quarter of an ounce of Cayenne, and the same quantity of pounded mace. Put all the spices with the juice into a large earthenware jar (standing in a pot of water), and boil for three hours; or the ketchup may be boiled in a preserving pan. Let the spices remain in it when bottled.

To Bake Mushrooms.—Take large-sized, rather open mushrooms, peel off the skin and cut off the end of the stalk, set them in a tin dish, the stalks uppermost, lay in each a little salt, pepper, and a small bit of butter; set the dish in the oven, and bake twenty minutes; serve on a very hot dish, with the liquor that ran out of them poured over.

To Stew Mushrooms.—Trim and rub clean with a bit of flannel dipped in salt, half a pint of large button mushrooms; put into a stewpan two ounces of butter, shake it over the fire till thoroughly melted, put in the mushrooms, a teaspoonful of salt, half as much pepper, and a blade of mace pounded; stew till the mushrooms are tender, then serve them on a hot dish.

To Broil Mushrooms.—Peel some fresh mushrooms, cut them small, make a case with a sheet of writing-paper, rub the inside with fresh butter, and fill it with mushrooms. Season with pepper and salt, and put them on a baking plate over a slow fire. Cover with a saucepan-lid with some fire on it; and when the mushrooms are nearly dry, serve them up hot.

To Preserve Mushrooms for Future Use.—The small open mushrooms suit best. Trim and rub them clean, and put into a stew-pan a quart of the mushrooms, three ounces of butter, two teaspoonfuls of salt, and half a teaspoonful of Cayenne pepper and mace mixed; stew until the mushrooms are tender; take them carefully out and drain them on a sloping dish. When cold, press into small pots, and pour clarified butter over them. Put writing paper over the butter, and on that pour melted suet, which will exclude the air and preserve them for many weeks, if kept in a dry, cool place.

To Preserve Eggs for Winter Use.—Pour four gallons of boiling water over three pounds of quicklime; stir it by degrees till well mixed; let it stand thirty-six or forty-eight hours, then take off the lime water carefully, so as to remove as little lime as possible. Mix a teacupful of salt with the lime water, and pour it over the eggs, previously placed in earthenware pots glazed inside, and let it rise an inch or two above the eggs. This quantity is sufficient for about twelve dozen of eggs. Place the jars where they will not be moved, as there will be a crust on the top, which should not be broken till the jar is about to be used. The eggs must be fresh when put in, and kept closely covered.

The First of October.

NIMROD *loquitur.*

Dawn! with a faint rosy flush in the east—
A morning most modest and sober!
Nothing heard in the wood—nothing seen on the wing,
Coquettish First of October!
The welkin is draped, like a quakeress young,
In silver-grey, the demurest;
But to smile in the sunshine all sad-browed maids,
And grey skies are the surest.

Though opal the hue of the clouds and the mist
That ever creeps higher and higher,
There's Sport lurking under this sober array—
There's the Opal's heart of fire!
Though silence is here, on the far heath sounds
The boom of the moor-fowl's ballad,
The hare on the hill, like a spinster sits up,
And nibbles her morning salad.

Soon the linnet will scream, and the cushat will hush
His cr-rooings sentimental;
For the hawk, the feudal lord of the woods,
Is collecting his death-paid rental.
Draw away, fleece of mist, that lies on the mere,
And unveil the sentinel heron,
That stands, like a dismal ghost by the Styx,
Awaiting the coming of Charon.

Shine out, morning sun, and draw up from the moors
The haze of this Autumn weather;
And show us the scarlet eye of the grouse
'Mong the purple blooms of the heather!
Gild the leafless, moss-covered boughs of the woods,
To the sportsman always so pleasant,
And burn, in the ferny undergrowth,
On the plumes of the lordly pheasant!

D. MURRAY SMITH.

The Month of October.

"The dead leaves strew the forest walk,
And wither'd are the pale wild flowers;
The frost hangs blackening on the stalk,
The dewdrops fall in frozen showers."

Barnard.

The month of October is marked in some of the old Saxon calendars by the figure of a husbandman, carrying a sack of corn on his shoulders, and sowing it as he walks, in allusion to this month being the first in which the grain for the next autumn's harvest is sown. In others the almost obsolete sport of hawking is represented, this being the last month of the year in which our ancestors indulged in that pastime. The month was called by the Saxons Weinmonat, or the vine month; but perhaps we ought to call it *beer* month. Who has not heard of the charms of "mighty October"?

October is always associated with the fall of the leaf; and, although there is no time of the year when the woods look more beautiful, with the rich autumnal tints ranging from green to dark brown, red and orange, yet there is always a feeling of sadness at the visible decay in the vegetable world. The garden beds begin to look bare, the winds whistle through the boughs, and at each gust bring down a many-tinted shower of leaves, or perhaps a hailstorm of nuts, golden acorns, or glossy beech mast, to tell of the close of both summer and autumn. "Harvest" is over, and "Seed-time" has returned once more.

HOP GATHERING.—Before the corn sowing, the hop gathering in the sunny south of England makes the fields gay a little longer than in the north. No one who has not seen a hop gathering in Kent or Sussex can have any idea of the picturesque gaiety of the scene. Whole families migrate annually to the hop gardens, the baby in the cradle being sometimes swung between two hop poles, while the tents and little huts of the hop pickers dot the waste spots by the roadside. The hops sometimes reach the height of sixteen feet, and the tall poles covered with the graceful bines,

with their tassels of fruit, are extremely pretty as well as fragrant.

Hops are supposed to have been brought into England from the Netherlands, and to have been used for brewing as early as the year 1428.

Cook's Calendar for October.

Fish in Season.—Turbot, halibut, brill, soles, herrings, dory, eels, perch, pike, cod, carp, haddock, barbel, smelts, crabs, lobsters, prawns, shrimps, and oysters.

Meat in Season.—Beef, veal, mutton, pork, and doe venison.

Poultry in Season.—Fowls, turkeys, geese, ducks, chickens, pigeons, larks.

Game in Season.—Grouse, pheasant, partridge, woodcock, teal, snipe, plover, wild duck, blackcock, hare, and rabbit.

Vegetables in Season.—Peas, kidney beans, cabbages, cauliflower, celery, radishes, salad, shalots, spinach, tomatoes, truffles, turnips, artichokes, brocoli, potatoes.

Fruit in Season.—Apples, pears, figs, grapes, filberts, damsons, medlars, peaches, quinces, walnuts.

Gardener's Calendar for October.

The gardener ought to commence his preparations for next spring's crops in October; all necessary draining and manuring should be done; every available spot should be dug deeply and left rough. Prepare ground intended to receive trees and shrubs that are to be transplanted, cut down the haulm of asparagus and dress the beds with litter, manure strawberry beds and cut off the runners, earth up celery, plant out cabbages, cover seakale with the forcing-pots for an early crop, finish taking up roots for storing, prune and transplant gooseberry and currant bushes, form new plantations of raspberry canes, prune and tie up the old ones. Watch carefully all fruit and roots stored away, remove any decayed fruit, and see that the roots are quite free from damp. Plant tulips for early blooming in well-manured soil, and take up those dahlias that have done blowing. Bulbs for forcing may be potted; house choice chrysanthemums, shelter auriculas, fuchsias, pinks, &c., intended to remain out of doors, and move those intended for the house into their winter quarters. This is the best time to form composts for flowers, and for this purpose sweep up the decaying leaves and put them in heaps or into pits with some mould to form leaf mould, which is the best manure for all kinds of flowers; shelter delicate shrubs, and prepare for the winter frosts.

Hints on making Soup.—Having already given receipts for several kinds of soup in Best of Everything, a few remarks on soup-making in general may be acceptable to our readers, and to these we add a few additional receipts.

Two things are essential in making stock for soup. First, it must be made in a closely covered vessel,—a digester, with a lid that is almost air-tight, is the best: next, the meat must be put into cold water, and allowed to come to a boil very slowly, in order to extract all the flavour and gelatine out of it.

The Stock.—Brown and clear soups are usually made with beef stock, the shin, or that part of the neck of beef called the "sticking piece," is the best. The meat must be fresh, lean, and juicy. Cut it from the bone in small pieces, break the bones up with any bones of roast or boiled meat that may be in the larder. Bones contain a large amount of gelatine, and therefore add considerably to the strength of the stock. To every pound of meat put one pint of water, then set the digester over a slow fire, to heat as gradually as possible. When the scum rises, take it off carefully, or the stock will not be clear. Let it boil a few minutes before the vegetables are added, then put in three good-sized carrots, two large turnips, a bunch of leeks and sweet herbs, some celery seed tied in a muslin bag, a large onion stuck with cloves, and a tomato Boil all gently for six hours, and while

still hot strain it through a fine hair sieve into an earthenware pan. Let it remain till next day, then skim off the fat and take the stock, which should be a rich jelly, from the sediment that is in the bottom of the pan. All soup is better if made the day before it is wanted. Clear soup should be perfectly transparent, and the thickened soup only about the consistence of cream. Arrowroot and corn or rice flour are the nicest things with which to thicken it. Stock for white soups is made in the same way as beef stock, using, however, veal or fowl instead of beef; and onions, mace, and white pepper for seasoning; turnips, being white, can be used if the flavour is preferred.

Should the stock not be of a sufficiently dark brown colour, add a spoonful or two of browning, which is made in the following manner:—

Browning for Soups and Made Dishes.—Take four ounces of moist sugar, and put it into an iron frying-pan or earthen pipkin; set it over a clear fire, and when the sugar is melted it will be frothy; raise it higher from the fire until it is a fine brown, keep stirring all the time, then fill the pan up with red wine (claret is best), taking care that it does not boil over; add a little salt and lemon peel, put in a few cloves and a little mace, a shalot or two, and boil gently for ten minutes; pour it into a basin till cold, and then bottle it very carefully for use.

Soup à la Julienne.—Cut three large carrots and two turnips into shreds about an inch long and the eighth of an inch wide, put these into warm water, and let them boil for a few minutes. Add a stick of celery cut up in the same manner, and lay all into a stew-pan; when tender, put over them two quarts of the brown clear stock prepared as above, and simmer for twenty minutes, then add a tablespoonful of mushroom ketchup, and a dessert-spoonful of Worcester sauce. Serve hot.

Vermicelli and Sago Soup are made in a similar way, omitting the vegetables and putting instead well-boiled vermicelli or sago.

Game Soup, a Scotch Receipt.—Cut a hare in pieces, and save the blood; reserve some bits of the meat and the liver to make force-meat balls, and put the rest into a saucepan with six quarts of water; season with onions, sweet herbs, pepper, and salt; stew it gently for two hours. In another saucepan put the blood into a quart of water, and stir in two tablespoonfuls of rice flour to make it the consistence of gruel; and when the whole boils up mix it with the stock. Take two partridges, skin and cut them into four pieces, brown them in butter in a frying-pan, and add them to the soup, with about three pints of carrots and turnips neatly cut and parboiled. Make the force-meat balls as follows:—Mince the liver and meat very finely with rather more than half its quantity of fat bacon, or butter, one anchovy, a little lemon peel, and lemon thyme, pepper and salt, grated nutmeg, and crumbs of bread; make up the balls the size of a nutmeg, with a well-beaten egg; fry of a light brown in clarified beef dripping, fresh lard, or butter; drain them before the fire, and add them to the soup; half an hour before serving; pick out all the loose bones of the hare. Even without the partridges this receipt makes an excellent hare soup.

Carrot Soup.—Weigh two pounds of carrots, wash them carefully, taking out all black specks, slice them into a stew-pan, with three ounces of butter, a little salt and cayenne; stew them gently until soft, then add to them two quarts of stock, and simmer till the carrots are soft enough to pulp through a sieve, skim off any scum and serve very hot.

Palestine Soup, a White Soup.—Put two ounces of butter into a stew-pan, add fifteen Jerusalem artichokes washed and peeled, four onions, two sticks of celery, half a pound of lean ham, and a little salt. Slice all these ingredients, and stew them until soft in the butter, then add a quart of good white stock, with a small bit of mace, and boil gently for half an hour. Pulp it through a sieve, and let it stand till next day; when ready to serve, put in half a pint of thick cream.

Mulligatawny Soup, an Indian Receipt.—Take four fowls, cut them in pieces, and take off the skin, put them to stew in five pints of water, let them stew till very tender, then add three ounces of onions that have been sliced and boiled, two ounces of dried chilis, three ounces of curry seed, three ounces of butter, a quarter of an ounce of white pepper, a small bit of cinnamon, and a pinch of saffron. When nearly ready to serve, put in a pint of good cream, and let it just come to a boil; stir a tablespoonful of lime juice into the tureen when going to table. Two quarts of strong white stock makes this soup quite as well as fowls.

Notes on Home Brewing.—The art of brewing is of so much importance in domestic economy, that we make no apology in presenting our readers with a few carefully matured hints on the subject. The process of brewing has been fully described in many excellent treatises, from which the intelligent reader can obtain all the knowledge he requires; but we think it will be of service to furnish a condensed view, of what is essential to brewing successfully, on the scale suitable for a single household, and carefully avoiding all such details as are not absolutely requisite.

The Boiler. — The material of which this is made requires attention. An iron boiler will be found suitable, but it is much less desirable than one of copper. A copper boiler, although at first more expensive, is to be preferred, as it can be kept cleaner, is more readily heated, will last for a greater length of time, and as old metal will be worth about half its original cost. A boiler which can contain about forty-five gallons, will be found most convenient for domestic use. It is large enough to produce half a hogshead of strong ale, and the same quantity of table beer, which for many families will be found a sufficient quantity. A pipe of about an inch and three quarters in diameter should project from the bottom of the boiler, and beyond the brickwork with which it is built up, and this pipe ought to be situated so as completely to drain off all the liquor from the boiler; but this it cannot do unless the internal orifice of the pipe be on a level with the lowest part of the boiler. Into this pipe a tap is to be fixed without any bend or curve in it, so as the more readily to allow the hops to pass through. During the process of brewing a piece of canvas may be rolled round the end of the tap so as to hang down into the sieve through which the contents of the boiler are to be strained.

The Mash-Tub. — A sherry-cask, with one-fourth of its length cut off, will make an excellent and cheap mash-tub, capable of containing about eighty gallons. At the distance of about a couple of inches from the bottom of the mash-tub, a wooden hoop must be fixed to support a false bottom of wood, perforated with numerous small holes, close to each other. Both the false bottom, and the hoop on which it rests, must be moveable, and the latter must be attached to the sides of the tub with small nails. The mash-tub must be furnished with a straight tap, on a level with the bottom of the vessel, for the purpose of drawing off the worts. The mash-tub must be placed on the stand or gawntree, at a height sufficient to allow the underback to be placed with facility below the tap in the mash-tub.

The Oar.—This is a mashing-stick, consisting of an ash-pole about two yards in length, having at its extremity a frame about twelve inches long, and narrower at the lower than at the upper end. Across this frame there are several spars, by which it is rendered a convenient implement for thoroughly mixing the malt, and bringing it all in contact with the water. The person whose business it is to use the mashing-stick, and to stir the worts in the boiler, must be enabled to stand sufficiently high to perform the operation efficiently, and for this purpose he ought to be furnished with a set of steps of a suitable height.

Gauge-sticks are of importance to enable the brewer accurately to ascertain the quantity of worts in the boiler;

to measure the number of gallons of water in the mash-tub, or the quantity of liquor in the fermenting tuns or other vessels. These useful implements may be easily made by putting into the different vessels they are intended for, a certain number of gallons of water, and marking the stick at the various points at which the water rises when any specified number of gallons are successively introduced.

The Underback and Coolers.—The mash-tub may be made by using the fourth part of the sherry cask already spoken of. It will suit well as an underback, and along with three or four large tubs to serve as coolers, will be sufficient for the brewing of half a hogshead of ale, and the same quantity of table beer.

Fermenting Tuns, &c.—For half a hogshead of ale, and the same quantity of table beer, two fermenting tuns will be necessary, each containing forty-two gallons. Besides these, a wooden vessel, or "piggin," holding about a gallon, and having a long upright handle, will be necessary for the purpose of lifting the worts from the underback into the coolers, and a couple of pails will be requisite, each of them being marked so as to indicate two gallons and a half.

The Thermometer and Saccharometer.—The art of brewing requires that the degree of heat, and the quantity of saccharine or sweet matter in the liquid be correctly ascertained. For these purposes the instruments are requisite. Their mode of action will be explained to those who purchase them by the manufacturer, and their uses will be illustrated in the instructions we are about to give.

The Brewhouse and Vessels.—In making the comparatively small quantity of liquor required in a single household, it is not only difficult, but often quite impossible, to have an outhouse set apart for brewing, and for no other purpose. Yet it is a very desirable thing if this can be done. Washing, for example, ought never to be carried on in a brewhouse; as nothing is more injurious than to leave the remnant of dirty soapsuds in the tubs used in brewing. In fact, the greatest cleanliness is indispensable. All the vessels should be perfectly sweet, and free from mustiness or any other smell; they ought to be strictly examined the day before the brewing commences, and should never be used for any other purpose; and they ought to be carefully cleansed and kept quite free from dirt.

To Clean Casks.—These should be well cleansed with boiling water, and if the bung-hole be large enough, they should be scrubbed inside with a hand-brush, sand, and fuller's earth, and afterwards scalded. As to the coolers, and indeed all the vessels, care should be taken not to let the water stand in them any length of time, as in all water left stagnant a prodigious multitude of animalcules are generated, which, although too minute to be visible to the naked eye, are easily discerned by the microscope. Water in which these creatures are generated emits an intolerable stench; and if the vessels containing them are of wood, they retain the smell, and hardly any amount of scrubbing will eradicate it.

Zinc-lined Coolers.—So important is it that the coolers should be free from any bad odour, that we recommend that the interior of the vessels be lined with zinc; this secures greater purity, and expedites the cooling of the worts. The mash-tub should be kept scrupulously clean, no grains being allowed to remain in it longer than the day after the brewing. We shall now make a few remarks on the ingredients used in brewing, and then give a description of the process.

Water.—Different opinions are entertained as to the relative merits of the water for brewing; but we may with confidence state that rain water is certainly superior to any other for the purpose. It is, however, difficult to obtain this in a condition of sufficient purity, as the rain water collected from the roofs of houses carries particles of vegetable substances, imparting to the water a nauseous flavour. The purest water is that produced from

melted snow, collected in the open fields after a heavy fall. This water possesses the highest degree of purity, and is all but identical with distilled water; it being, in fact, the result of distillation. If it is desirable that rain water should be used, let it be obtained in as pure a condition, and as free from any peculiar taste and odour as possible. River water is well suited to the purpose so far as its softness is concerned, but it contains, especially in the warmer and autumnal months, a large quantity of both animal and vegetable substances. Hard water, in consequence of its chemical constitution, has less power than the two other kinds to extract the virtues of the malt and the hops; but this inconvenience may be obviated by raising the heat of the water. Skilful brewing, no doubt, can do much towards rendering the liquor made from hard water as good as any other; but undoubtedly pure rain water is the best.

Malt.—The best malt has a sweet smell, a mellow taste, a round body, and a thin skin; pale malt is adapted for domestic brewing, and brown malt for public breweries.

Hops.—The best hops are of a bright green colour, sweet smell, and a feeling of clamminess when rubbed between the hands.

Brewing.—We shall now describe the process of brewing, for, say, half a hogshead of strong ale, the same quantity of middle ale, and a quarter hogshead of table beer. This will require six bushels of malt, and care must be taken that it has not been dried at too high a temperature, nor ground more than three days, and that it is pale malt, and of the best quality.

Heat required.—It is of the utmost consequence to obtain such a degree of heat as shall be best adapted to extract the essential properties of the malt. Put forty-four gallons of boiling water, heated to 212 degrees of the thermometer, into the mash-tub, and add five or six gallons of cold water, so as to reduce the heat from the boiling point to 182 degrees. Put the malt into the mash-tub, and with the oar or mashing-stick stir it so completely that the water shall have access to every part. When this is done, let about a half-peck of the malt be strewed on the top of the mash in the mash-tub; this will serve as a non-conductor, and tend to keep in the heat. The cover is now to be put on the mash-tub, a blanket placed on the cover, and sacks on the blanket. Every means must be employed to keep in the heat, to prevent the steam from escaping. Let it be observed that there are now fifty gallons of water in the mash-tub, and six bushels of malt, or about eight and a quarter gallons of water to each bushel of malt. The mash must be left covered from two to three hours, after which some of the worts is to be run off into a pail and returned again, till at last the liquor running from the tap appears perfectly clear, and then let it run into the underback. When the worts have run off for some time, and the bed of the mash begins to appear, water at 190 degrees of heat must be added. This must be done in such a manner that the water shall fall in a shower all over the surface of the mash at the same moment, so as to carry with it the virtues of the malt left behind by the liquor already run off. While this new supply of water is being showered on the surface of the mash, the tap is still running, and the first forty-four gallons must be set aside for the half-hogshead of strong ale; the next forty gallons for the half-hogshead of the ale of middle strength, when the tap should be shut, and the worts intended for the table beer allowed to remain in the mashing, but twenty-four gallons of water at 195 degrees of temperature must be added to the mash for the table beer, in the manner already described.

Boiling the Worts.—In boiling the worts for the strong ale, the forty-four gallons already set aside for the purpose are now to be put into the boiler, and raised to the temperature of 200 degrees. Put two pounds of the best hops, well rubbed and separated by the hand, into the liquor, and boil briskly for three quarters of an hour;

stir well during the boiling. Add two pounds more of the hops, rubbed and separated as before, and let the boiling be continued for twenty-five or thirty minutes longer. The quantity of forty-four gallons, thus boiled, will be reduced by evaporation, and by the liquor absorbed by the hops, to about thirty gallons; and before drawing it off its specific gravity should be tested by the saccharometer. This ought to be from 102 to 108, but if greater strength be required, a quarter of a pound of raw sugar for each gallon should be added, which ought to produce a specific gravity of from 112 to 118, equal to the best ale. The liquor is now to be run off into the tubs, the piece of canvas already spoken of being fixed on the tap so as to direct the liquor through the hair sieve into the vessel to contain it. It is then put into the coolers to the depth in summer of not more than two, and in winter about three or four inches.

The Second Worts.—When the liquor for the strong ale is out of the copper, the second worts must be put into it along with two pounds of fresh hops, and boiled briskly for an hour and a half. If, when tested by the saccharometer, the specific gravity is only 51, and if the quantity of thirty gallons be in the boiler, 20 pounds of sugar must be added, which will increase it to 73 or 74. After boiling a few minutes, draw off the liquor and place it in the coolers. The worts for the table beer must now be put into the boiler, with the four pounds of hops boiled in the processes before referred to. It must be boiled for two hours, and when the boiling is nearly completed, half a pound of sugar per gallon will give the beer a suitable degree of specific gravity.

Fermentation.—Here it must be stated, that for each kind of ale or beer it is requisite that there should be a surplus quantity of a couple of gallons to supply the loss occasioned by the fermentation. It is desirable to have three fermenting tuns. When the liquor for the strong ale has cooled down to 85 degrees, take out about one gallon of it, and pour into it three English pints of brewer's strong ale yeast of the best quality. Pour this mixture into the tun, into which put the worts, and let it then be well incorporated with the yeast, and cover up the tun for the fermentation. The same process is to be carried out with the ale of the second strength, but the table beer is to be fermented at 80 degrees, and one English pint of yeast will be sufficient.

The morning after the liquor has been put into the tuns with the yeast, the surface of the worts ought to be covered with a white cream; this is to be stirred up with the contents of the tun, and some of the liquor subjected to examination. Some decrease of specific gravity, and a slight addition to the heat of the liquor ought to be detected. The state of the liquor must again be examined into in the evening, and if the fermentation be weak some yeast must be added, and mixed up with the mass of the liquor. If by the second morning the work is going on well, the surface of the liquor will be covered with thick froth; but on testing the condition of the liquor, if there appears no indication of an increase of heat, and no apparent diminution of specific gravity in it, let the head of froth be broken up, and the whole be well stirred. The head of froth which afterwards appears, of a dark brown colour, on its surface, must be carefully removed, as it will fall to the bottom and spoil the flavour of the ale. The same remark may be made as to the yeast which appears at the bunghole during the fermentation, which continues for some time after the ale is put into the casks.

After the ale and beer are made, the next process we come to is that of

Fining.—There are several methods of doing this. Perhaps as good a way as any is to dissolve an ounce of isinglass in a quart of stale beer, allowing it to remain for several days; add another quart of the stale beer, strain through a sieve, and put an English pint to each half-hogshead.

Hints on Bottling Malt Liquors, &c.—There can be no doubt that all fermented malt liquors, as well as wine, are improved by bottling, when the work is performed with sufficient skill and care; but there are several considerations requisite to success which we shall now bring under the notice of our readers.

THE STATE OF THE LIQUOR at the time of bottling. The fermentation of the liquor should be nearly completed; if not, there will be the risk of bursting the bottles in consequence of the generation of too large a quantity of air. On the other hand, if the fermentation be over and the liquor be flat, the beer will become more or less sour. The mode of judging as to the fitness of the liquor for bottling is to ascertain its condition in the cask. If, on drawing the vent-peg, the liquor spurts out with violence, it is certain that the process of fermentation is still going on; on the other hand, if it appears to be still, and on being tasted is in good condition and brisk, it may be held to be in a fit state for bottling. If, however, it be too brisk and frothy while bottling, the bottles ought to be left uncorked for a few hours, and filled out. They should only be filled up as the froth works within an inch of the cork.

To Ripen Ale or Porter.—If flat when bottled, there are several ways, among which the following may be recommended:—When about to fill the bottles, put into each a teaspoonful of raw brown sugar, or two teaspoonfuls of rice or wheat, or six raisins.

Corks for Bottling.—There is indeed no economy in bad corks. If they are not sufficiently sound, and allow the air to escape, the liquor becomes flat, and consequently sour, and the bottles might nearly as well be left open. The corks should be soaked in the liquor before being put into the bottles, and if the bottles be then laid on their sides, the corks will swell so as to be perfectly tight. It need hardly be added that great care should be taken that the bottles have been thoroughly washed and are perfectly clean.

To make Bottle Wax.—Take one pound of resin, one pound of beeswax, and half a pound of tallow. Mix these with red or yellow ochre, soot, or Spanish whiting, according to the colour you require. Melt the whole carefully, stirring it all the time. If it be likely to boil over, stir it with a candle end, which will allay the violence of the ebullition.

Stands for Casks.—All casks containing beer, ale, wine, or any other liquors, ought to be placed on strong elevated stands or tressels. They should be so situated as not to touch any part of the walls of the cellar or store-room in which they are placed. When they are near the walls they are liable to be attacked by dry-rot, which leads to the bursting of the casks and the loss of their contents. The tressels ought to be at such a distance from the wall that one may be able to go round them and examine their condition; when this, from the position of the barrel, is impossible, it will be found a great inconvenience should any leakage take place.

How to make Mead.—The following is a good receipt for mead:—On twenty pounds of honey pour five gallons of boiling water; boil, and remove the scum as it rises; add one ounce of best hops, and boil for ten minutes; then put the liquor into a tub to cool; when all but cold add a little yeast spread upon a slice of toasted bread; let it stand in a warm room. When fermentation is set up, put the mixture into a cask, and fill up from time to time as the yeast runs out of the bung-hole; when the fermentation is finished, bung it down, leaving a peg-hole which can afterwards be closed, and in less than a year it will be fit to bottle.

Notes on Pigeons.—These birds are classed together under the general term *Columbidæ*, and, although they possess many characteristics in common, the species which are comprehended under the general description are many and various. Pigeons are found in every quarter of the globe within the frigid zones; but in tropical

regions the varieties that prevail are most numerous, and their plumage much more varied and brilliant than in the more temperate climates. As an example of this may be mentioned the beautiful green pigeon of India, which makes its habitation in the forests of that country, or amidst the branches of the banyan, which indeed is itself a forest. The general colour of the head and lower parts of this bird is green; the back is dark brown tinged with purple, the wing coverts and secondary quills are of the brightest yellow. Although in our temperate climate pigeons are not found to possess the brilliant hues of their Oriental congeners, yet we possess an ample variety, known to pigeon-fanciers by different names, some of which it must be admitted are sufficiently whimsical. We have not only the English Pouter but the Dutch cropper; we have the Horseman and the Dragoon; the Trumpeter and the Tumbler; the Nun and the Capuchin; the Runt, the Unloper, and the Fantail.

It is difficult to determine, amidst such variety, what is the best breed of pigeons. If the birds are to be kept merely for their ornamental appearance, the choice must be left to the fancy of the possessor; if they are to be maintained for utility, a common breed of a large size will be preferable to any other.

Health of the Birds.—To keep the birds in health and comfort, a dovecot should be properly constructed, and placed in some situation, if possible, separate from any building. It should consist of a wooden box of greater or less dimensions, according to circumstances, with a sloping roof, and having the interior subdivided by partitions into separate cells, corresponding with the number of pairs to be kept. Each of these compartments ought to be about twelve inches in depth from front to back, sixteen inches in breadth, and an entrance hole in front ought to be placed at one side, by means of which the birds will have more space and comfort in the interior. In front of each cell ought to be placed a slip of wood on which the birds may perch, and it has been suggested, in consequence of the quarrels that arise for the possession of such perches, that they should be separated by partitions. The dovecot, if raised upon a wall, ought, where practicable, to be so placed as to face the south-east, and should be at such an elevation as to be secure from the attacks of vermin or cats. It ought to be painted white, as the pigeon seems to be pleased with that colour. Gravel should be strewed on the ground in front of it, as it is requisite for the proper digestion of the birds, and the utmost attention must be given to keep the interior perfectly clean. Cleanliness, indeed, is quite indispensable to the health of its feathered inmates; the cot should be scoured out with regularity, and the floor of it strewed with sand once a month at least.

It is remarkable that all, or nearly all the *Columbidæ*, whether inhabiting temperate or tropical countries, lay only two eggs. This circumstance, however, does not limit their increase any more than the single egg of certain kinds of sea-fowl tends to keep down their numbers; for if the pigeon hatches only two eggs at a time, she makes ample amends for the smallness of the number by the frequency with which she brings forth young ones. The common pigeon begins to breed at the age of nine months, and breeds every month. The young birds produced are generally a male and a female. The parents during the time of incubation relieve each other alternately in the duty of hatching, which occupies a period of fifteen days.

Best Food.—The food best suited to pigeons consists of tares and white peas; but wheat, barley, oats, rape, hemp, and canary seed, will all be found acceptable, but ought not to be given to them constantly. They are very fond of salt, which contributes to their health; for this purpose a heap of clay may be left near their abode, on which the brine, which is no longer required for household uses, may be poured. This will form a convenient place to which the birds may resort for their favourite condiment.

Diseases.—These may be remedied

by a medicine which seems applicable to almost all their ailments. This is bay salt and cummin seeds mixed together. Their backs and breasts sometimes become scabby, and for this the following preparation will be found effectual:—Take a quarter of a pound of bay salt, and as much common salt, a pound of fennel seeds, a pound of dill seeds, a pound of cummin seed, and an ounce of assafœtida; mix all with a little wheaten flour and some fine clay, and when they are well beaten and mixed together put these ingredients into an oven in two earthen pots; bake them; when cold put the mixture on the table in the dovecot, and the birds will eat it and be soon cured.

The Turtle-dove is a migratory bird. It arrives in England about the middle of May, and leaves early in September; when the young birds accompany their parents to the more genial climate of the South. The plumage of this pigeon is brown on the upper part of the body, the crown of the head and back of the neck are ash grey, the sides of the neck are marked by a patch of small black feathers with white points, the throat and breast are of a beautiful chocolate hue, and the remainder of the under surface of the body is pure white, together with the legs; the feet are red, and the claws black. These pretty birds are remarkable for the constancy of their attachment to each other. Cowper thus refers to this peculiarity:—

"One silent eve I wandered late,
And heard the voice of love;
The turtle thus addressed her mate,
And soothed the listening dove:—

"Our mutual bond of faith and truth
No time shall disengage;
These blessings of our early youth
Shall cheer our latest age."

The Carrier Pigeon.—This member of the dove family is of a blue or blackish colour, and has a circle of red skin round the eyes. It is remarkable alike for its attachment to its place of birth and its great powers of flight, and those qualities have rendered it of great value and interest as a messenger, both in ancient and in modern times; it being capable of conveying important intelligence to places accessible only to creatures endowed with wings, and in a very brief period of time. The male and female birds are usually kept together and well treated; and if one of them be taken to a distance, it will return with great velocity to its usual abode, passing through the air at the rate of forty miles an hour, carrying with it a small billet of thin paper placed under its wing. Some ill-informed writers attribute the marvellous power the carrier pigeon thus possesses, to its knowledge of the intermediate localities lying between its home and the place to which it is removed, which is a mere gratuitous assumption. Perhaps in the immediate vicinity of its usual abode its knowledge of the locality may direct it homewards, but when the distance is so great as a hundred miles, there can be no doubt that the power which directs the flight of the bird with such unerring accuracy is pure instinct, operating independently of acquired knowledge or previous experience,—a power as wonderful as it is mysterious, and implying the action of an intelligence greater far than reason itself.

How to prepare Feathers for Pillows, &c.—Keep the feathers for some months after they have been plucked, in clean grey linen bags, in a perfectly dry place; then strip the large feathers off the quill, the small ones remaining as they are. Put them into the bags again, having well aired and tossed the feathers about. Put them opposite a fire, but not too near, frequently turning the bags for about a week, and repeating the airing and tossing about two or three times during the drying process; then put them into your pillows, airing them well again before using. If these directions are properly attended to, the feathers will be quite dry, and have no smell whatever.

To take Grease Spots out of Carpets.—Mix a little soap into a gallon of warm soft water, then add half an ounce of borax; wash the part well with a clean cloth, and the grease or dirty spot will soon disappear.

Hints on Knitting, No. 2.

How to Knit a "Cloud."—The American and Canadian ladies are in the habit of wearing light scarves of fine knitting over the head and round the neck, instead of an opera hood when going out at night.

These scarves are called "clouds," and are so extremely light that they do not disarrange the flowers or ruffle the hair in the least degree, while they are quite sufficiently warm to prevent any danger from cold.

A "cloud" is made of very fine Lady Betty wool, or of Shetland wool, if white be the colour preferred. They are very pretty in pink, light blue, or in scarlet, if the wearer is a brunette. The pins for knitting a "cloud" must be very smooth wooden pins; we have seen them in America, of vulcanized india-rubber, but we are not aware whether such pins have ever been introduced into London. They are particularly smooth and slightly elastic, and about the third of an inch in diameter. Cast on three hundred stitches in common garter stitch; this is the length of the "cloud." Knit very loosely until a square of three hundred rows is formed; then knit the first and last rows loosely together, to join the "cloud;" gather the ends together, and finish them with a handsome silk or woollen tassel to each. The "cloud" ought to be long enough to go over the head and twice round the throat; it is very comfortable as well as becoming.

Simple Pattern for an Antimacassar.—A very pretty and easy pattern is worked with cotton of two degrees of fineness. The coarse cotton should be as thick as the ordinary piping cord; the fine about No. 10 or 12 of the common knitting cotton. Take a pair of medium-sized bone pins, and cast on 64 stitches in the coarse cotton: this will form the length.

1*st Row.* Purl all the stitches.

2*nd Row.* Plain knitting.

3*rd Row.* Purl.

4*th Row.* Knit two plain stitches, two together three times; thread forward and knit one six times, putting the thread forward each time, two together six times; repeat from the star till there are only eight stitches on the pin: then knit two together three times, and two plain for the edge.

5*th Row.* Purl.

6*th Row.* Plain.

7*th Row.* Purl.

8*th Row.* Same as 4th; and so on till there are eight or twelve pattern rows done; then join on the fine cotton, and knit in the same way as the coarse, making alternate stripes of coarse and fine cotton, ending with coarse the same as the beginning; finish with a fringe.

It is impossible in such a work as "Best of Everything," to give more than one or two receipts for each kind of needlework, as illustrations of our remarks rather than new patterns, as the magazines and newspapers devoted almost entirely to ladies' requirements, in dress and needlework, render this unnecessary. The *Queen* newspaper, and the *Englishwoman's Domestic Magazine*, leave nothing to be desired in the way of guides to all kinds of new and fashionable work, and the editors of both are most courteous in answering all inquiries addressed to them.

The Knitting Machine.—Several domestic knitting machines have been invented; of these Lamb's Family Knitting Machine, and the Bridgeport Family Knitting Machine, appear to be favourites. The former of these is screwed on to a table, and is moved by a crank handle; the latter is like a small treadle sewing machine, but both work on the same principle as the stocking frame. They are capable of forming all kinds of knitting, whether round or flat, and of making knitted trimmings as well. The Hinkley knitting machine, the most recently invented, needs scarcely any manual help, and works either by the foot or hand, any fabric from a glove to a Guernsey frock.

Filtration of Water.—From the experiments of Dr. Frankland on this subject, it appears that the process of filtering water does not consist merely in separating from the fluid deleterious substances held by mechanical suspension in it, but in a chemical change of the materials dissolved in the water. According to the experiments referred to, when properly conducted, organic matters in a putrescent condition are efficiently converted into harmless products; carbon and nitrogen in organic combination undergo the process of oxidation, and the latter assumes the character of nitric acid, forming a nitrate with whatever bases are present. The water on which Dr. Frankland's experiments were made was ordinary London sewage; and the filtering medium was common soil, or a mixture of sand and chalk. By the process adopted, the water was so deprived of its noxious qualities, as to be rendered not only equal, but superior in purity to the water supplied in London for domestic purposes. It appears, however, that there exists a great difference in the purifying powers of different substances employed for filtration, as well as in their capability of retaining their efficacy. From the great importance of the results at which the experiments have thus enabled us to arrive, it is obvious that a convenient and thoroughly efficient filter may be regarded as one of the most valuable requisites, not only in London, but in every city. During the prevalence of cholera, it was found in many parts of the country that the mortality was greatest where the water commonly used for domestic purposes was supplied by wells into which deleterious substances found their way through the soil, and there can be no doubt that, in all such cases, the use of filters, properly constructed, would have gone far to prevent the spread of the epidemic.

Filters.—Lipscombe's and Danchell's.—The former is patented by Mr. Lipscombe, the latter by the London and General Water Purifying Company. They are understood to possess very remarkable efficiency, and are well deserving of our readers' attention. They have received the approval of many eminent medical men, and are used in the London hospitals and other similar institutions, and her Majesty the Queen, the Prince of Wales, the Emperor of the French, and other royal personages, have availed themselves of the invention. Without entering into details, we refer our readers for full information to the printed descriptions issued by the inventors themselves, and which appear to us to be accurate in every particular.

A Cheap Filter.—A cheap and effectual filter may be easily made by those who are unwilling to incur the expense of the larger and more perfect apparatus, by means of a common flower-pot. All that is requisite is to fill the hole with a piece of sponge, and the rest of the pot with alternate layers of sand, charcoal, and small pebbles. The flower-pot thus fitted up may then be placed on a jar or other convenient vessel, into which the water as it filters through can be received.

Poisons.—Poisons are divided into three classes,—mineral, animal, and vegetable. Those of the first of these classes are such as sulphuric, muriatic, and nitric acids; the concentrated alkalies, as potash, soda, and ammonia; and the preparations of arsenic, copper, antimony, &c.

Symptoms of Mineral Poisoning.—The effects produced by sulphuric acid (oil of vitriol), or any of the strong acids, are frightful in the extreme: burning, and an excessively disagreeable taste, acute pain in the throat, stomach, and bowels, insupportable fetor of the breath, vomiting of various coloured matters often mixed with blood, which effervesce with chalk, evacuations mixed with blood, acute colic, difficulty of breathing, frequent and irregular pulse, excessive thirst, in which drink only increases the suffering and is quickly vomited, the skin cold as if frozen, especially the skin of the lower extremities, convulsions of the face and limbs, but, strange to

say, amidst all this agony, the mental powers are rarely disordered. All these dreadful symptoms, it is true, are not always found in the same person, as their severity depends on the nature and strength of the poison.

Treatment of Poisoning by Acids. —One of the most efficient antidotes in all these cases is calcined magnesia; next to this soap, and then chalk and water. An ounce of the magnesia should be mixed with a pint of water, and a glassful taken every two minutes, so as to prevent the acid from acting and to check vomiting. If the magnesia is not at hand, a solution should be made of half an ounce of soap in a pint of water, and a glassful taken every few minutes; chalk and water will likewise be useful. Injections should also be given of magnesia, soap, or chalk. The stomach-pump ought to be had immediate recourse to, in order as speedily as possible to empty the contents of the stomach. After every effort is thus made to remove the poison as well as to neutralize it, the next object is to subdue the inflammation it occasions. For this purpose the patient should be placed in a bath at 95 degrees, and the stomach and bowels fomented with cloths wrung out of warm water. If these measures do not give relief, a dozen leeches should be applied to the abdomen, and these efforts will be greatly assisted by drinks given to the patient, prepared with linseed, mallows, or gum arabic. The aid of a medical man ought instantly to be procured, but as everything depends on the promptitude and activity with which assistance is given, and as most of the remedial measures already described may be adopted prior to his arrival, they should, without a moment's delay, be had recourse to.

In Poisoning with Strong Alkalies, the symptoms are in a great degree similar to those produced by the acids. In these cases, however, the means of neutralizing the action of the alkalies are not magnesia, soap, or chalk, but vegetable acids. A glassful of water mixed with a tablespoonful of vinegar or lemon juice should frequently be administered, and even simple water in such quantities as to cause vomiting. These remedies, if inadequate, ought to be followed by the use of the warm bath and leeches; but the aid of a medical man is of the highest importance, and ought to be procured without loss of time.

The Preparations of Mercury, such as corrosive sublimate, calomel, red precipitate, prussiate and sulphurate of mercury, and the various preparations of other metals, as of tin, copper, arsenic, antimony, silver, &c., when a large quantity is taken, produce symptoms dreadful in the extreme, and demanding the utmost promptitude in administering suitable remedies. In all such cases, indeed, the great object is to afford immediate aid to the unhappy sufferer before the arrival of the doctor; for the energy with which most of these poisons act admits of no delay in any measure calculated to arrest or to mitigate the violence of their action. The poisons now in question produce constriction in the throat, pain in the back part of the mouth, stomach, and intestines; vomiting with more or less violence, fetid eructations, hiccup, and difficulty in breathing; the pulse is small, hard, and rapid; an unextinguishable thirst comes on, accompanied by cramps, coldness of the extremities, and horrible convulsions; the features undergo a most painful change, the strength rapidly gives way, and delirium and death close the scene.

The great object, therefore, is to arrest the action of the poison, by removing and neutralizing it as promptly as possible.

The Best Antidote to corrosive sublimate and all other mercurial preparations, is the white of egg beaten up with cold water. The whites of a dozen or fifteen fresh eggs should be beaten up and mixed with two pints of cold water, and a glassful taken every two or three minutes so as to favour vomiting. If a sufficient number of eggs is not immediately attainable, let as many as can be had be used while

others are sought for. If eggs cannot be obtained, milk, gum-water, decoctions of linseed, mallows, barley, or sugared water, should be taken in abundance. This treatment, carried out with energy and promptitude, will make an excellent preparation for those measures which a medical attendant is likely to adopt in order to check inflammation.

Poisoning with Arsenic. — All medical men agree that in cases of this kind the first object is to empty the stomach as promptly as possible. The stomach-pump is most effective for this purpose; but if it cannot be applied, or if there is no doctor there to do so, some method of removing the poison from the stomach must be resorted to without delay. The patient ought to drink large quantities of sugar and water, warm or cold water, linseed tea, or any mucilaginous fluid. By this means the stomach is filled and vomiting more readily effected. Drink, composed of equal parts of lime water and sugar and water, may be given with much benefit. If emetics are had recourse to, a dose of ten grains of blue vitriol or twenty-five grains of sulphate of zinc is the most suitable. When the poison is evacuated from the stomach, it ought to be carefully remembered, that the ultimate restoration of the patient must in a very great measure depend on his treatment during the period of convalescence, which must necessarily be tedious. His nourishment should consist of milk, rice, gruel, and such substances as are of a softening mucilaginous character.

Poisoning with Verdigris, Blue Vitriol, or any of the Preparations of Copper.—The best antidote to such poisons is the white of eggs. The general treatment should correspond with that recommended in poisoning by corrosive sublimate.

Poisoning with Tartar Emetic and other Preparations of Antimony is accompanied by severe vomiting and cramp in the stomach. The vomiting itself tends to throw off the poison; but abundant supplies of sugar and water, or water alone, should be administered, and if, after the poison may be supposed to be ejected, the vomiting and pain still continue, a grain of opium should be given, or thirty drops of laudanum or acetate of morphia, and a dozen leeches should be applied to the throat, especially if there be any difficulty in swallowing.

In Cases of Poisoning by the Preparations of Tin the best antidote is milk, of which several glassfuls should be given. Warm water also should be freely given to excite vomiting, and fomentations, emollient injections, and such other means employed, as are calculated to arrest or subdue inflammation.

Poisoning by Bismuth and Zinc requires the same treatment as adopted in cases of arsenical poisoning.

Poisoning with Lead and its Preparations.—Sugar of lead, extract of lead, and other preparations of this metal, produce, when taken in a large dose, many alarming symptoms, such as vomiting, hiccup, and difficulty of respiration, accompanied by a sweet astringent metallic taste, constriction of the throat, and pain in the stomach. In such cases Glauber's salt, Epsom salts, and hard water, are the best antidotes. Half an ounce of either of these salts to a quart of water, will form a suitable solution, of which several glasses should be given; and when by these means the poison is expelled by vomiting, or is decomposed, sugar and water, gum water, and other mucilaginous drinks can be administered.

In Poisoning with Nitre the treatment ought to be similar to that recommended in cases of arsenical poisoning, with the exception of lime water, which ought not to be used.

In cases of Poisoning by Lunar Caustic or Nitrate of Silver the most effectual antidote is common kitchen salt. A large spoonful in a quart of water will make a suitable solution, and of this several glasses should be promptly taken to induce vomiting. If the symptoms continue, treatment to allay any tendency to inflammation

should be adopted as already recommended.

In all such cases as we have now referred to, the remedies prescribed are such as a practitioner would, in the first instance, apply, and which, therefore, may with safety be had recourse to before medical assistance can be procured; but no such aid as the best private treatment can afford, ought for a moment to supersede that of a medical man, who, if within reach, should be instantly summoned.

Law of Assignment.—An assignment of stock in trade includes only those articles which were possessed by the assignor at the time when his assignment was executed, and does not include articles which he may afterwards acquire, even although it is so expressed in the assignment. An order by a creditor on his debtor, to pay the amount of his debt to a third person, is an effectual assignment of the debt, should the debtor express his willingness to pay it, and the creditor cannot make the order. An order of this kind requires a stamp; without one it is inadmissible in evidence. When a person lends money on the security of a policy of insurance on the life of the borrower, the lender should take care that notice, under the hand of the borrower, be given to the insurance office. Without such notice, should the borrower become bankrupt, the lender will have no security for his money; and should the borrower die, the insurance office cannot be compelled to pay any portion of the sum assured to the lender. The manager or secretary of the insurance office is bound to deliver to the person giving the notice an acknowledgment that it has been received, for a fine not exceeding five shillings.

Cash and Credit.—Credit is a convenience very dearly paid for, more especially in the large towns, where traders, being unacquainted with the private circumstances of their customers, are constantly liable to loss. A West End tailor will give a customer, properly introduced, a year's credit, but will take care to compensate himself by adding one-fourth to the price of the articles furnished. A grocer in a London suburb, when he conceives he has a reasonable chance of being paid, will supply goods on long credit, but will add from a sixth to a third on the cash price. Liquor dealers and butchers charge in like manner. It has been calculated, and we believe correctly, that an income of £250 will, on the ready money system, go quite as far in London and its suburbs, as £300 when credit is taken. By these extra charges the retailer is only a moderate gainer. By giving credit he is constantly a loser, owing to the unprincipled conduct of a certain class of customers, and he regulates matters according to a scale, so that his honest debtors compensate him for the shortcomings of those who act dishonestly. In commencing housekeeping, continue to meet promptly all your engagements; and show your grocer, baker, and butcher, that you are ready on the shortest notice to settle your accounts. We ourselves have for many years adopted the plan of weekly payments, and these are to be recommended, both as suiting the convenience of your tradespeople, and enabling you to estimate your cost of living for the year.

Attachments by the Lord Mayor.—A proceeding for securing debts due to the plaintiff has been immemorially exercised in London and Bristol. Thus, by what is termed a process of "foreign attachment" in the Lord Mayor's Court, debts are attached in order to compel the defendant to appear and put in bail to the action. Till after judgment such a proceeding is not competent in the common law courts. There is a proceeding in Scotland known as "arrestment," similar to the "foreign attachment" in the Lord Mayor's Court.

Breach of Trust, Frauds by Trustees and Others.—Money, or property of any kind, committed to the trust of any person, is a sacred charge; and if the person to whom such trust is committed violates his charge, he not only outrages the

customs of society, but renders himself criminally liable. If any trustee, merchant, broker, or agent, uses any money or property entrusted to his keeping, for his own purposes, he commits a misdemeanour, and is liable to be punished with penal servitude or imprisonment.

Calisthenics for Women.—We all know what the end of "all work and no play" results in. The "dulness" which too often arises from the exclusive cultivation of the intellect or the taste may, perhaps, be in some measure accounted for by the sameness and monotony of the employment; but it is certain that, although the mind may to a considerable extent be cultivated at the expense of the body, yet there cannot be permanent intellectual vigour in a condition of physical weakness. The biliary apparatus and the temper, the mind and the muscles, are intimately allied; and that which favourably affects our physical health and development, best conduces to our ability to discharge the moral duties and perform the intellectual toils which human life demands. These remarks are equally applicable to both sexes. Woman requires, quite as much as man, physical education and training, as the means of attaining bodily health and mental vigour. The principle, it is true, has not yet been universally recognised, but in several instances its importance has already been admitted and acted upon. In the Liverpool gymnasium there are classes for the physical education and training of ladies, and the example of the third city of the empire has been happily followed by other large towns; and in the metropolis more than one gymnasium having a class for ladies has been established. The German Gymnastic Society have permitted a class for ladies, to be held twice a week in their large hall in the St. Pancras Road, near King's Cross, where every appliance for the calisthenic exercises of a very numerous company is to be seen. Ladies only are admitted to these classes as spectators. A committee of ladies have the entire management, and one of their number is always present. The calisthenic training given is conducted by a properly qualified master, who thoroughly understands how to regulate it, so that the pupils shall not be unnecessarily fatigued, nor allowed to make exertions greater than their strength will bear; while, at the same time, enough is done to make the exercise really valuable as part of a system, which will enable more to be accomplished at a future time. It is particularly made a point of importance that no pupil shall overtax herself. The object of these exercises being to develop grace of bearing, and to conduce to health, rather than to acquire extreme strength or agility, they have therefore been chosen with great care; and all exercises requiring violent effort, or which would in any way be disagreeable to ladies, are strictly prohibited. Of course wrestling, violent jumping, &c., are not used in the ladies' class.

The DRESS FOR CALISTHENICS is carefully suited to the exercises they have to perform, as it would be rather difficult to accomplish them in the present style of ladies' dress. A sort of uniform has been adopted, consisting of a scarlet Garibaldi, with a short full grey skirt of some soft stuff trimmed with scarlet, and full trousers of the same material, with soft black house boots. This costume allows of sufficient freedom of action, particularly about the limbs and chest.

In addition to the gymnasium now noticed, there is another in Bruton Street, Berkeley Square, conducted by Madame Brenner, who deserves great credit for her laudable exertions in reference to this important matter. In her establishment is an apartment fitted up with all the needful appliances and means for the physical training of her pupils. Dumb-bells, bar-bells, rings, ladders, the trapeze, and the Indian club are all brought into requisition, to the manifest strengthening as well as the development of the muscles of the back, the chest, and the limbs; and, what is of high importance, the attainment of an erect and graceful carriage.

Let us hope that the efforts of such institutions, which are clearly in the right direction, may tend to dissipate the ignorant prejudice with which, in too many instances, they are regarded, and that we may come to the universal application of the doctrine, that the well-being of our daughters, as well as that of our sons, does not depend only on the exercise and training of their intellectual powers, but on their physical health and vigour also; and that physical training must keep pace with mental and intellectual culture, if we would confer on them the greatest blessing of life, the possession of a "sound mind in a sound body."

Hints on Home Decoration.—To imitate Japanese Lacquer Work.—A very pretty and inexpensive imitation of the beautiful cabinets, boxes, and trays brought from the East, may be made in the following manner:—

To Gather the Leaves.—Gather early in the autumn the brightest and most perfectly shaped leaves that have assumed their autumnal tints. The sycamore, the various kinds of maples, Virginian creeper, copper beech, wild rose, or any leaves having bright red, orange, or green tints, are suitable for the purpose. Ferns also, particularly the adiantums, preserve their green colour so well when dried, and are so graceful in shape, that they are most useful in this work.

To Prepare them.—Having collected the leaves, of various tints and sizes, proceed to prepare them by laying on a smooth table a sheet of blotting-paper. On this place one of the leaves, wrong side uppermost; with a sharp penknife pare off the projecting part of the centre stalk, without injuring the upper side of the leaf, then paro or scrape gently all the other veins, till the under side is so smooth and flat, that when the leaf is laid on the table, with its right side up, it can hardly be perceived by the touch. Prepare all the leaves in the same manner, and as each one is finished, lay it between blotting-paper, and dry them as if for putting into an herbarium; they will take two or three weeks to dry perfectly.

The Article to be Adorned.—The next process is to prepare the article to be adorned; the top of a small round table is, perhaps, the easiest thing to begin upon. Let the top be of deal, with a turned pillar and claws of any hard wood, and have it painted black with *flat* paint. When the paint is perfectly dry and hard, give it a coat of the best transparent varnish, and before this is quite hard, group the leaves on the table according to fancy; a border of small leaves round the edge, and a pretty group of leaves and ferns in the centre, is very effective. When you have planned the pattern according to your taste, apply some of the varnish with a camel-hair pencil to the under side of the leaves, and gently press them on the spot where they are to remain. Do not put on too many at a time, and be careful that they are not disturbed till quite dry.

The Varnish.—When all are put on, and dried thoroughly, apply one or two coats of the purest transparent varnish over the table. This will effectually preserve the leaves as bright as possible for many years; and the table will have much of the appearance of lacquer work; a resemblance which is much increased by the use of gold paint, a little bottle of which, along with the varnish for using it, may be had for eighteenpence. The pillar may be painted with circles of gold round the turned parts of it, and its claws, or a small gold edging may be put outside the border of leaves. A little practice and some patience will enable a lady of taste to ornament in this way cabinets, folding screens, and many other articles for her drawing-room.

It is not absolutely necessary that the ground for laying on the leaves should be black; they are sometimes put on a scarlet or drab ground, but then they are more like papier-maché goods than like the foreign lacquer, the ground of which is very generally of a black or dark brown colour.

Spray Work.—This is suitable for many sorts of ornamentation, boxes, screens, tables, lamp-shades, pillows, toilet sets, even albums and fancy blotting-books, can be decorated with it, and its beauty and durability render it worthy of our attention.

Boxes, hand-screens, or fans for spray work are made of white wood, and can be purchased at most fancy shops. They require no preparation for the work, but must afterwards be varnished with transparent varnish · this had better be done at the shop where the article has been purchased, as it needs some experience to do it well.

Lay the article, which we will suppose to be a hand-screen, on a large sheet of blotting-paper on a table, arrange on it a group of ferns, either green or dried; fasten them firmly with small pins (those used to mount insects with are best), stuck through the stems, and at the end of each frond into the wood. Make a liquid preparation of sepia or Indian ink, or if colour is preferred, procure a bottle of the aniline dye, of the shade required. Dip into it a soft tooth brush, hold it within two or three inches of the surface, and pass a fine comb over the brush so as to make the colouring matter in the brush spatter all over the screen and ferns. Continue to do this until the spaces round and between the ferns are well darkened, the edges of the screen being comparatively free from spots, and growing darker in shading towards the centre. When the sprinkling is dry, remove the ferns, and a perfect impression of them will be seen in the original colour of the wood on a spotted ground. Next take a pencil dipped in Indian ink, and carefully trace the outline of each fern, and also the central veins down each spray and leaflet. Spray work on fine white satin jean is done in exactly the same way, to make toilet tidies, pincushions, &c., but the ink must either be the best indelible or marking ink, or a bottle of Judson's dyes. For sofa pillows use white or light velvet, the effect of which is excellent; ivy or other leaves have an exceedingly good effect, either grouped with the ferns or placed in bunches by themselves. D'oyleys, done on fine jean or dimity, look very pretty, and wash extremely well.

Billiards, Pool, Pyramids.—This celebrated game possesses high claims on our attention, as combining, in an eminent degree, the advantages of intellectual entertainment and physical exercise. The game is played on a table perfectly level and steady, six feet in breadth by twelve in length; that is to say, containing two equal squares of six feet each. The table, which is covered with fine green cloth, is surrounded on all sides by an elastic cushion, and provided with certain "spots"—viz., the winning and losing spot, at the upper end, thirteen inches from the top cushion, and equally distant from each side; the winning spot, a little lower down; the centre spot, exactly in the middle of the table; the baulk spot, and two other minor spots. At each of the four corners of the table, and at the centre of each side, is a hole furnished with a netted pocket into which the balls are made to fall.

Object of the Game.—The aim is to force one or more of the balls into one or other of the six pockets by means of a third ball, which is called the Striker's Ball; or to make what is called a Cannon, by causing the striker's ball to strike the two others. The balls are of the finest ivory, and turned with the utmost care, so that each shall be a perfect sphere, having the centre of gravity exactly in the centre of the sphere, without which precaution the ball would have a "bias," or tendency to roll more to one side than another. The balls are struck with an instrument called a Cue, which is a stick made to taper to a fine point, and covered at the tip with leather. Besides the cue, there is another instrument for a like purpose, called the Butt, which differs from the cue in being made broad at the base; and there is a Jigger, or Rest, which is a stick with an ivory or brass top, to assist the player in reaching the ball if he is too distant from it;

but this is seldom used, indeed, only when it is unavoidable.

Such are the instruments with which the game is played. We shall now mention the chief technical terms employed in it.

Technical Terms in Billiards.—*Angles.*—If a ball be struck in the centre, against any part of the cushion, it will rebound at an angle corresponding with that at which it struck the cushion. If the ball and the cushion were perfectly elastic, the angle made by the ball with a perpendicular line supposed to touch the cushion, at the point at which the ball comes in contact with it, would be equal to the angle made by the ball at its departure from the same point and with the same perpendicular. The theory is that "the angle of reflection is equal to the angle of incidence." The same rule is exemplified in the most perfect manner in the science of optics, in which a ray of light falling on a polished surface, is reflected at an angle with the perpendicular, equal to that which is made in falling on it.

Baulk-line.—This is a line drawn across the table at about 2½ feet from its lower end. A ball is said to be "in baulk" when inside that line. The Baulk-circle is a semicircle of 11 inches radius, drawn from the centre of the baulk-line, from which the player starts. A Line-ball is a ball half in and half out of the baulk, resting exactly on the baulk-line. A Miss, either accidental or intentional, is made when the player fails to strike the object-ball with his own. The Cannon is the striking of two balls successively with your own ball, either before or after contact with the cushion. A Doublet, or Double, is a stroke made by striking a ball, either your own or the object-ball, across the table and making a cannon or a pocket. A Double-double is made when a ball rebounds twice across the table. A Bricole Hazard is made when a doublet is made by striking the cushion first, with the view of making a cannon or hazard at the return of your ball. A hazard is a stroke by which a ball is forced into a pocket after striking another ball. A winning hazard is when the object-ball is played into a pocket; a losing hazard when your own ball falls into a pocket after striking another. High stroke, low stroke, following stroke, and side stroke, are terms derived from the part of the player's ball struck with the point of the cue. Foul stroke is a stroke not in accordance with the rules of the game. The jenny. This is made by making a losing hazard on a middle pocket off a ball lying near the cushion and pocket. Miss. The intentional or accidental missing of the object-ball, either with the cue or the butt. In hand. The player's ball is said to be in hand when it has been forced into a pocket or off the table, and has to be played from baulks. Screw or twist. This is a stroke made by striking the ball below its centre; which has the effect of retarding the progress of the ball, by causing it to stop dead at the point of concussion with the object-ball, or the turn in the direction from which it was struck. The Object-ball is the ball which the the player aims at with his own ball; the striker's ball is the ball which he strikes with his cue. Coup. This occurs when a ball runs into a pocket or falls off the table without touching either of the other balls. Pair of Breeches. This is a double hazard in the end pockets, one ball in each. Cramp games are those in which one player gives to another some apparently great advantage.

General Principles of the Game.—There are certain axioms which are easily understood, and by means of which a knowledge of the general principles of the game of billiards may be gained. The practice, however, is much less easily acquired than the knowledge of rules, and without practice mere rules cannot make a player. In playing, the eye and the hand must act in strict unison; "in making your stroke," says an excellent authority, "an instantaneous glance will be sufficient—a

glance that rises from the striker's ball to the object-ball, and rests there while the stroke is being made. As the rifleman looks at the target rather than the muzzle of his piece when taking aim; as the cricketer has his eye on the wicket at which he is about to bowl rather than the ball in his hand; as the boy fixes his attention upon the sparrow he wishes to hit rather than the stone between his fingers, so the billiard-player must give his mind to the object-ball rather than to his own. With amateurs this is at first a little troublesome; but as 'knowing' is the half-way house to 'doing,' he has half conquered his difficulties who knows precisely what his difficulties are." The position in which to stand; the best modes of making the "bridge;" the most efficient method of using the cue and of striking the ball; the mechanical problems which the game illustrates; the relation—always uniform—between the causes put in operation and the effects they produce,—these all require, in order to the attainment of skill, frequent and persevering practice. On all these subjects the more elaborate treatises will be found of service, especially when the study of them is associated with the requisite amount of skill and practice.

Rules of the Game.—The following are the rules to be observed in playing:—

I. The game is to begin by "stringing" for the lead and the choice of balls.

II. The red ball must be placed on the spot, and replaced there when it is holed, or forced off the table.

III. A player who makes one stroke in a game must finish the game or agree to lose it.

IV. The striker who makes any points continues to play till he ceases to score.

V. If, when a cue is pointed, the ball should be moved, it may be replaced, if not replaced, it may be regarded as a foul stroke.

VI. If a ball spring from the table it is considered as being off the table.

VII. If a ball stands near the brink of a pocket, and falls into it, it must be replaced and played at or with again.

VIII. A ball lodged on the top of the cushion is considered off the table.

IX. When the player's ball is off the table, and the other two balls are in baulk, he cannot play at the balls in baulk.

X. A line-ball cannot be played at by the player whose ball is in hand, except by first striking a cushion.

XI. All misses must be given with the point of the cue and the ball struck only once.

XII. No score can be made by a foul stroke.

XIII. If the adversary do not enforce the penalty for a foul stroke the striker may play on and score.

XIV. Two points are scored for with white hazard, two for each cannon, and three for every red hazard.

XV. When the red ball is pocketed, or off the table, and the spot it stood on is occupied by the white ball, the red must be placed in a corresponding situation at the other end of the table.

XVI. If a ball be moved by the striker in taking aim, such moving of the ball is to be considered a stroke.

XVII. If the player miss striking either ball he loses one point, and if by the same stroke his ball runs into a pocket he loses three points.

XVIII. If the striker force his own or either of the other balls over the table after having struck the object ball, or after making a hazard or cannon, he neither gains nor loses by the stroke, and his adversary plays on.

XIX. If he wilfully force his ball off the table without striking another ball he loses three points.

XX. If he play with the wrong ball, and a cannon or hazard be made thereby, the adversary may have the balls "broken;" no penalty, however, is attached to the mistake unless it be discovered before the next stroke is played. No person has a right to inform the player that he has played or intends to play with the wrong ball; if the adversary do not see that the striker plays with the wrong ball, or does not enforce the penalty for so doing, the marker must score all the points made by the stroke.

XXI. If the striker's ball be in hand and the other two balls within the baulk, and if he strike one of them, whether by accident or design, without first playing out of the baulk, the adversary may let the balls remain as they are and score a miss; or he may have the ball so struck replaced and score a miss; or he may make the striker play the stroke over again; or he may consider it as a foul stroke and break the balls.

XXII. If the striker's ball be in hand he has no right to play at a cushion within the baulk in order to strike a ball that is out of it.

XXIII. If the striker's ball be in hand, and he, playing from the baulk, move his ball in the act of striking, it is a stroke although the ball should not move out of the baulk.

XXIV. If the striker's ball be near the ball he plays at, and if he make the stroke with the point of his cue, it is fair, but if the stroke be made with the butt, the marker must decide whether the stroke is fair or foul.

XXV. If the striker's ball be on the edge of a pocket, and if, after missing the hit and in drawing back, his cue causes the ball to fall into the pocket, he loses three points.

XXVI. If the striker in giving a miss from the baulk let his ball remain in the baulk, the adversary may let the ball remain, or compel him to play the stroke over again.

XXVII. If the striker in giving a miss make a foul stroke, and the adversary claim it as such and enforce the penalty, the miss is not scored.

XXVIII. No person is permitted to take up a ball without leave from the adversary.

XXIX. If any one move a ball by design or by accident, or take it up on the supposition that the game in ended, it must be replaced to the satisfaction of the adversary.

XXX. If either player obstruct the course of the ball, it is considered foul, and the ball must be replaced, the balls broken, or the game forfeited.

XXXI. During a game no one is permitted to give advice to the players.

XXXII. No one is permitted to walk about the room, make noise, or otherwise annoy the players.

XXXIII. Cases of uncertainty, or difficulties for which the rules do not provide, must be referred for decision to the marker; or, if the marker be personally interested in the game, to the majority of the company present.

Pool.—This game, which is a species of billiards, is played in various ways; sometimes with two balls. Each striker plays in turn. The game may be played by two or more players: good authorities consider seven or eight to be the best number. When arrangements are made as to the amount of the stake, &c., each player has a ball given to him, either coloured or numbered; and at starting he has three chances, which are called "lives." The white is then placed on the "spot" at the end opposite the baulk, and the red plays at it from the baulk semicircle. If the player pocket the white, he receives the price of a "life" from the owner of the white; if, however, he fail to make the winning hazard, the next player—the yellow—plays upon him, and so on till only two players are left, the rest having lost their "lives." The two who remain may, if they have each an equal number of lives, divide the stakes or play out the pool till one wins the whole sum. When a player takes a life, *i. e.*, when he pockets the ball he plays upon, he then plays at the ball next his own; and if he also pocket that, he plays again upon the nearest ball, and so on, as long as he can continue to score. The player loses a life to the owner of the ball he aims at if he runs into a pocket and makes a losing hazard after contact, or if he makes a coup, or forces his own ball off the table, or misses the ball he plays at; and he wins a life for every ball he legally pockets. The price of each life is immediately paid by the player who loses it. If a player has lost all his lives he may star, *i. e.*, he may purchase as many lives as the player lowest in number possesses. Thus, if the lowest number on the marking board be one, the purchaser of the star has one life given him, for which he pays an amount equal to his original stake; if the lowest number be two, the star has two lives. The following is a more particular statement of the rules.

Rules of the Game. — I. Each player has three lives at starting. No. 1 places his ball on the winning and losing spot. No. 2 plays from the semicircle at No. 1, No. 3 plays at No. 2, and so forth, each player playing at the last ball unless it be in hand, in which case he plays at the nearest ball. II. If the striker lose a life, the next player plays at the ball nearest to his own; but if his ball be "in hand," he plays at the ball nearest to the centre of the baulk line. III. In case of any doubt as to the distance of the balls, it must be measured from the centre spot in the baulk; but if the striker's ball be not in hand, the measurement must be taken from his ball to the others, and in both cases the decision must lie with the marker or the majority of the company; and if the distance be equal, the decision must be decided by drawing lots. IV. The baulk is to be considered as no protection in any circumstances. V. The player loses a life in any of the following cases, viz.: 1. By pocketing his own ball; 2. By running a coup; 3. By missing a ball; 4. By forcing his ball off the table; 5. By playing at or with the wrong ball; 6. By playing out of his turn. VI. If

the striker pocket the ball he plays at, and by the same stroke pocket his own ball or force it off the table, he, and not the player whose ball he pocketed, loses a life. VII. If the player strike the wrong ball he pays a life to the player whose ball he should have played at. VIII. If the striker miss the ball he ought to play at, and strike and pocket another, he loses a life; in which case his ball must be taken off the table. IX. If while taking aim the striker be misinformed by the marker or by any of the players as to the ball he ought to play at, he does not lose a life; but the ball must be replaced and played again. X. If the player require information as to which is his ball, or when it is his turn to play, he has a right to an answer from the marker or the players. XI. When a ball or balls touch the striker's ball, or are in line between it and the ball at which he has to play, so as to prevent his hitting any part of the object-ball, they must be taken up till the stroke has been played, and afterwards replaced when the balls have ceased running. XII. If a ball or balls be in the way of a striker's cue, he can have them taken up. XIII. When a striker takes a life, he continues to play on as long as he can make a hazard or till the balls are all off the table; in which case he spots his ball as at first. XIV. The first player who loses his three lives is entitled to "star" on the terms already stated. XV. If he refuse to star, the second may do so; and if he refuse, then the third may do so; and so on till only two are left in the pool, when the privilege of starring ceases. XVI. One star only is usually allowed in a pool. XVII. If a striker move his own or another ball in the act of striking, the stroke is foul; if he pocket a ball by the same stroke or force it off the table, the owner of it does not lose a life; but if he pocket his own ball by the stroke, or force it off the table, he loses a life. XVIII. If the striker's ball touch the ball he has to play at, he may either play at it or at any other on the table. XIX. If, after making a hazard, the striker take up his ball or stop it before it has done running, he cannot claim the life. XX. If before a star two or more balls are pocketed by the same stroke, including the ball played at, each having one life, the owner of the ball first struck has the option of starring. XXI. If the striker's ball stop on the spot of a ball removed, the latter must remain in hand, and be replaced when the spot is unoccupied. XXII. If the striker miss the ball played at, no person is allowed to stop the ball while it is running, or until it has struck another, except the striker. XXIII. If the striker should have his next player's ball removed and stop on the place it occupied, the next player must give a miss from the baulk, for which he does not lose a life. XXIV. If the striker has a ball removed, and any other than the next player's ball stop on the spot it occupied, the former must remain in hand till the latter be played, unless it be the turn of the latter to play; in which case it must be replaced after the stroke. XXV. If the corner of the cushion prevent the striker from playing in a direct line, he can have any ball removed in order to his playing at a cushion first. XXVI. The last two players cannot star or purchase, but may divide if each has an equal number of lives; but the striker is entitled to his stroke before the division. XXVII. All disputes must be decided by the marker; but if he be interested, by a majority of the players. XXVIII. The charge for the table must be taken out of the pool before it is delivered to the winner.

Single Pool.—As to this game, all that is necessary to say is that it is played by two players for a stake in the lives—generally three in number—and a pool. The player who takes the majority of lives is the winner. As to the rules, they are the same as in pool.

Pyramids. — This game is played with any agreed number of balls, which are usually less in size than those played with in billiards; the number most commonly chosen is sixteen balls,

of which one is white, and fifteen red. Two persons ordinarily play the game, and the object of it is to pocket all the balls but one; and he who is left with that one at the end of the game is the winner. If more than two persons play, the strokes are taken alternately, and those who are partners are permitted to adviso each other. It is usual to play for a stako on the game, and a smaller sum for each ball or life; the players string for choice. The balls are placed towards the end of the table close together in the form of a pyramid, with the apex toward the player, who in commencing plays at the pyramid from the baulk semicircle, after which the baulk is no protection. The player who makes a winning hazard continues to play till he fails to make another hazard, makes a miss, or pockets his own ball, which is the white ball, it being common property. In either of these cases the player loses a life; and if by the same stroke he pocket one or more balls as well as his own, they are replaced on the table, and his adversary continues the game as before. As to foul strokes, the rules are the same as in billiards; but the following rules may also be mentioned.

Rules of the Game.—I. The player who pockets the greatest number of balls wins the game. II. If the player pocket the white ball; if he give a miss; if he force the white ball off the table, he loses a point, and one of the coloured balls he has pocketed must be placed on the winning spot if it be unoccupied; if not, it must be put upon the centre spot; and if that be occupied, it must be placed on the centre baulk spot. If, however, all these spots are occupied, the ball must be placed a foot below the apex or point of the pyramid. III. If the striker pocket his own ball; if he force it off the table, and at the same time pocket one or more of the coloured balls or force them off the table, the stroke does not gain anything; the balls are to be replaced on the table along with one of the striker's coloured balls, and the penalty is the loss of a life. IV. If the striker losing a ball have not taken one, the first he pockets must be placed on the table; and if he do not take one during the game he must pay the usual stake for each ball forfeited. V. If the player move any ball in taking aim or in striking, he loses what he might otherwise have gained by the stroke. VI. If the white ball touch a coloured one, the player may score all the coloured ones he pockets. VII. If the game be played with an even number of balls, the last hazard counts one; if it be played with an odd number, the last hazard counts two. VIII. If the striker force one or more balls over the table, he scores one for each as if he had pocketed them. IX. When all the balls are pocketed with the exception of one, the player who made the last hazard continues to play with the white ball, and his opponent with the red alternately. X. If only two balls are on the table, and the striker pocket the ball he is playing with, or if he make a miss, the game terminates. If, however, there be more than two players, and they not partners, the striker places a ball on the spot.

The American Game.—In this game four balls are used; two coloured and two white, and smaller than those used in billiards, properly so called. At the commencement of the game one coloured ball is placed on the winning spot, and the other on the baulk line on the centre spot. The second player places his ball on the spot, and the striker at starting either hits it or gives a miss.

The Baulk. — The baulk is the whole space within the line, and not merely the semicircle. It is by winning hazards and cannons that the scores are made: the cannon from a white to a coloured ball counts two; from one coloured ball to another three points; three points are taken for each coloured ball that is pocketed, and two points for the white ball. The rules as to other matters are the same as in the usual English game. It may be played for any number of points; but sixty-three is the common number adopted.

We have thus presented our readers with a brief account of the game of billiards. In some of the volumes published on the subject, will be found highly interesting illustrations and sound advice, which, being the result of much experience, merit the careful attention of those who desire to attain proficiency.

Hints on Home Music.

—Domestic Concerts.—These charming recreations are more easily within reach of musical families than appears to be generally supposed. The pianoforte is a host in itself if a good performer be available, and some pianoforte pieces interspersed with songs or other vocal music would serve to make up a very enjoyable domestic concert. On such occasions, as the object is to give pleasure to the domestic or friendly circle, the tastes of the listeners must be to a great degree considered.

Classical Music.—This, if of too dry a nature (as for example, Bach's fugues), should not be brought forward when the friends present happen to have a dislike to that style; while, on the other hand, a brilliant fantasia of the modern drawing-room style would be insipid, if not distasteful, to a lover of nothing but the music of the great masters. In a mixed company the selection might be made from different sources, so as, in a measure, to suit all tastes; but on no account need music of the most inferior nature be chosen. There are, for instance, some, indeed many, of Mendelssohn's "Songs without Words" which, if fairly well played, would please any listener; the same may be said of the works of Heller, and among the older masters, those of Beethoven, Weber, and Mozart; nay, even Handel and Bach may be selected from, without wearying any auditor, provided tact be observed in the selection. Besides classical music, however, there is a large variety of modern brilliant music which, in its way, may fairly take rank as good. The fantasias of Thalberg and Liszt, Döhler, Schulhoff, Ravina, Ascher, Goria, Herz, Ketterer, Rosellen, and others, although not classical, possess undoubted merit and charming features. Besides these, the operatic overtures of Rossini and other composers would supply pleasing selections for the pianoforte, without descending to a style of music which, however persistently advertised, is inferior and tawdry. The same may be said of songs.

Supply of Songs.—There is an excellent supply of German songs, and these can always be procured with English words; and besides, there are many meritorious compositions by our own countrymen, without contaminating the domestic taste with the utter rubbish of the music hall or pantomime.

Other Instruments than the Pianoforte for the Domestic Concert.

Instruments of the Violin tribe stand highest among musical instruments, their powers of expression and just intonation being possessed by no others, not even the majestic organ, whose grandeur is qualified by the imperfect temperament which is a necessary concomitant of ordinary keyed instruments. It will be therefore an advantage if different members of a family learn to play on such instruments as the violin, viola, and violoncello.

For these instruments, and for the pianoforte in combination with them, some of the greatest works known in music have been composed. Sonatas for the violin and piano, trios for two instruments and the piano, quartets for two violins, viola, and violoncello, and quintets for four such instruments and the piano, are among the most highly prized things which the genius of the great masters has contributed to the art of music. We need only name the sonatas of Mozart, the trios of Beethoven, and the celebrated quartets of Haydn, to recall memories of supreme delight among the lovers of good music; while the name is legion of composers of lower grade who have added to the rich store of concerted music by their charming contributions.

The Orchestrina.—When instruments of the violin tribe are not available, the

music written for them may be performed by a pianoforte player on this newly invented instrument, manufactured by the inventor, Mr. Evans. The orchestrina is constructed of different pitches, corresponding to the violin, violoncello, clarionet, horn, and other orchestral instruments. Thus, a quartet for violins, &c., may be played by four orchestrinas, or a single instrumental part by one such instrument. The orchestrina somewhat resembles a small harmonium.

The Harmonium.—This charming instrument is well suited to solo performance, and it is often used in duets with the piano. The harmonium may also play the part of the violin, flute, or violoncello in music originally intended for either of those instruments and the pianoforte. It should be kept in tune with the pianoforte.

The Clarionet, Hautboy, and Bassoon.—These instruments are not, with the exception of the second, so suitable for home use as stringed instruments. Much fine music has, however, been composed for them.

The Cornet-à-Pistons.—This modern instrument has become a very great favourite. Much popular music has been arranged for it, and it is comparatively easy to acquire proficiency upon it.

The Flute, Harp, Guitar, and Forty-eight keyed Concertina are well worthy of a place in the domestic concert, but the two first-named only can claim to be considered legitimate orchestral instruments. Of such instruments as the *German Concertina, Zither, Flageolet, Accordion, Dulcimer*, and *Metal Harmonicon* nothing need be said, except in deprecation of any waste of time in their regard, or of bringing forward at *domestic concerts* instruments which are little beyond musical toys.

Advice to Families.—Let us advise that musical families set apart a particular evening of the week as an "open night" for the practice of concerted music with their friends. This need involve no expense or trouble, a standing invitation to friends whose musical capabilities are sufficient being all that is required.

Hints on Rabbits.—The rabbit belongs to the hare family, and we are so familiar with the animal that any very particular description of its appearance is unnecessary. It closely resembles the hare in all its principal characters; but in its habits it is entirely different, and its flesh, instead of being, like that of the hare, dark and highly flavoured, is white, delicate, and somewhat insipid, especially when domesticated. The rabbit is declared by naturalists to be not an aboriginal inhabitant of Britain, but when it was introduced is unknown; it is, however, believed to have been brought into Spain from Africa by the Romans. As an evidence of their not being indigenous, it may be mentioned that in the year 1309, at the feast given on the installation of the Abbot of St. Austin's, six hundred rabbits were provided, at a cost of £15, the price of each, which was sixpence, being equal at the time to that of a pig.

Habits of the Rabbit.—The rabbit litters four or five times a year, bringing forth from five to eight young ones at a time, and beginning to breed at the age of six months. The animal delights in a sandy soil, with a superficial layer of fine vegetable mould, clothed with thyme, fine grass, and other herbage. In such situations it can easily make its burrows, and enjoy abundant food. It is remarkable that while the young of the hare are born covered with fur, and possessed of sight so as to be able to shift for themselves, young rabbits are born blind, naked, and helpless; they cannot see for about twelve days after birth, nor leave the burrow for more than a month.

Naturalists are of opinion that the wild rabbit is the original of our various domestic breeds; that domestication, as in the case of other animals, has had the effect of producing all the differences in colour which tame rabbits have, and that the tame rabbit readily resumes its natural state of freedom, and returns to its instinctive habits.

Best Kinds of Rabbits.—Stout, short-legged rabbits are better breeders than others, as well as more healthy. The large hare-coloured variety is much esteemed, but the white, or white mottled with yellow or black, is said to be the most delicate for the table. The grey is said to approach nearest to the flavour of the wild rabbit. Rabbit fanciers have different opinions as to the colours of the animals. Grey, as being the commonest, is held in least estimation; the black occupies the next place; the fawn, the white, and grey hold the third place; the pure albino with pink eyes is considered better than any of these; various admixtures of brown, grey, or black mixed with white, take the highest rank, and a uniform mouse colour is greatly admired by a few as superior to any other.

Rabbits, to Rear.—It is of great importance that the rabbitry be properly adapted to the purpose intended. The rabbit in its natural state prefers a dry and airy situation, and the rabbit-house or hutch ought, on that account, to be kept always dry, clean, and well aired. The hutch may be most suitably placed against the south wall of a house, so as to obtain the advantage of the sunlight. It should be surrounded by a wire fence, and, in the interior of the enclosure, boxes ought to be fixed as breeding places, separated by partitions from other boxes adapted for the young rabbits, which partitions are furnished with doors capable of being closed so as to separate the young ones from the parents when required.

Rabbits, to Feed.—It ought to be kept in mind that all the various vegetables and roots used at table may be given to them, and that perhaps celery, parsley, and the tops as well as the roots of carrots are preferred by the animals; lettuces, stumps of cabbage and cauliflowers, turnips, and parsnips, are all useful. In spring, tares are excellent, and the dandelion, the milk thistle, and sow thistle, are all much relished by them.

Rabbits, to keep Clean.—If kept clean and warm as well as properly and abundantly fed, they will breed all the year; but rabbit fanciers are generally content with five litters in a season.

If the tame rabbit is intended to be used as food it ought to be fed for a short time on hay, oats, and shellings, and this will much improve the quality of the flesh.

The Anagram.—The anagram originally signified the writing a word or short sentence backwards, by which another and a different word or sentence was formed; but the term now signifies not the mere writing backwards, but the transposition of the letters in any way the writer shall himself devise. Great value was in ancient times attached to the anagram, on the supposition that it indicated something of importance in the character of, or history or fate of, the person from whose name it was formed. Such notions have long been exploded, and the anagram is properly regarded as affording the means of amusement, or of laborious trifling, without yielding any result to compensate for the trouble it demands.

Great difficulty, as may be presumed, frequently arose in the composition of the anagram; from there being a letter more or less than was necessary in the transposed word or words to form some new expression which had attracted the fancy of the composer. This circumstance, however, was not always considered fatal to the anagram if the results were sufficiently promising.

Thus Lady Eleanor Davies, who was the wife of Sir John Davies, a poet of much genius, and himself extremely expert in composing what are called acrostics, conceived herself possessed of a prophetic spirit, and, as a ground of this belief, she produced an anagram of her own name—"Reveal O Daniel." In this anagram the lady's name had in it an l too little, and a superfluous s, but this was not considered as being fatal to the important announcement which it was presumed to make.

The best anagrams are those which, in the new order of letters, indicate something appropriate to the significa-

tion of the word or words from which they are formed. Of this an example may be cited from an anagrammatist of the Middle Ages, who, by transposing Pilate's celebrated question, *Quid est veritas?* (What is truth?) brings out the appropriate answer, *Est vir qui adest* (It is the man who is here).

To prevent Chills.—In our variable climate, a cold often becomes the parent of many formidable maladies. Prevention, therefore, is not only of great moment, but as the prevention is frequently much easier than the cure of an ailment, we shall make a few remarks as to the best modes of preventing chills, or, in other words, of avoiding catching cold.

How to act in Cold Weather.—When a person goes into the open air, every time he draws in his breath the cold air passes through his nostrils and windpipe into the lungs, and thus reduces the heat of these parts. As long as he continues in the open air he feels no bad effects from it; but on returning home and approaching the fire to warm himself, and taking, probably, some comfortable drink by way of "keeping out the cold," as the expression goes, he will at first feel a glow within his nostrils and breast, as well as over the whole surface of the body; but soon after a disagreeable dryness and huskiness will be felt in the nostrils and breast, afterwards a short, dry, tickling cough comes on; shivering follows; he draws closer to the fire, but to no purpose; he feels more chilly the more he attempts to warm himself. In this case all the mischief is occasioned by the violent action of the heat.

Preventive Measures.—Our remarks as to these shall be brief. Most people know that when any part of the body is "frostbitten," if the part affected be exposed to the heat of a fire, mortification is the almost certain consequence, whereas if the part be rubbed with snow, no bad consequences will follow. This seems very remarkable, but it is strictly true; and it arises from avoiding the sudden and violent action of heat upon the part affected by exposure to cold. Upon the same principle is founded the means of effectually preventing a cold or chill. On coming out of a very cold atmosphere, take care not to go at first into a room with a fire in it; but if this is impossible, keep at a distance from the fire till the sensation of cold is somewhat abated; above all, refrain from drinking warm or strong liquors when you are cold.

In a word, strictly observe the following rule:—*When the whole body or any part of it is chilled, bring it to its natural feeling and warmth by degrees.* By carefully attending to this advice, which is founded on the two great sources of all sound knowledge—observation and experience,—the severe colds we often experience in winter may be prevented.

On the subject of preventing chills or obviating the danger of catching colds, we shall only further add that the daily use of the flesh-brush to the throat, neck, and breast, and sponging the whole body with cold or tepid water, every morning on first getting out of bed, will in a very great measure diminish susceptibility to catch cold. The celebrated Sir Astley Cooper, than whom no higher authority can be cited on the subject, makes the following remark:—"The methods by which I preserve my own health are temperance, early rising, and sponging the body every morning with cold water immediately after getting out of bed, a practice which I have adopted for thirty years: and although I go from the hot theatre into the squares of the hospital on the severest winter nights with merely silk stockings on my legs, I scarcely ever have a cold."

Care of the Skin.—Thanks to enlightened medical men and others interested in sanitary measures, people are much more aware than they were wont to be a generation or two since, of the vast importance of the functions which the human skin performs, and the intimate relations which those functions bear to our comfort, our health, and even our lives. It may be, how-

ever, that only a very general and vague idea exists of what these functions really are, and on this subject we shall therefore say a word or two tending to show how important the due care of the skin really is.

Offices of the Skin.—One of the offices of the skin is to throw off, not only superfluous moisture, but even saline and gaseous matters. Its peculiar structure and its relations to the internal parts of the body prove the very great value and importance of the functions thus performed. In ordinary circumstances the secretions are thrown off so gradually as to be quite imperceptible, and are called the *insensible perspirations;* but under violent exercise, the application of heat, or by the action of those medicines called sudorifics, the quantity is much increased, and becomes visible in the form of drops; in this case it is what is called the *sensible perspiration.* It is said upon the best authority that the insensible perspiration alone amounts to a pint and a half of liquid in the twenty-four hours. How important, therefore, that the organ which performs so remarkable an office in the animal economy be kept in order! If cleanliness be neglected the skin becomes dry and harsh, and is rendered incapable of performing the work which nature demands; some other organ, therefore, must become its substitute, and thus have too much to do.

Neglect of Cleanliness.—Neglect of this, which alone enables the skin to throw off the insensible perspiration, becomes a "most fertile source of disease." The best prevention of the evils thus arising is the frequent use of the bath, and the daily sponging of the whole person with soap and tepid water. This practice, if persevered in, will be found to conduce in a very remarkable manner to personal comfort and to the exhilaration of the spirits, and thus indirectly minister to the possession of that physical health, which its specific action on the healthful condition of the skin will go far directly to secure. We recommend, therefore, to all our readers who know the value of the *sana mens in corpore sano* to keep in sound working order, by rigid attention to personal purity, an organ which we know from undoubted evidence, exercises so powerful an influence in the preservation and continuance of health.

The Hyacinth and its Culture.—The hyacinth requires a light but rich soil, sandy loam, well dressed, and mixed with thoroughly rotted manure, but if the soil is not sandy, add a third of silver sand. The soil for a hyacinth bed must be deeply dug, well mixed and turned over. Plant the bulbs eight inches apart, and four inches under the soil. The middle of October is the earliest time to plant in the open air; if the plants are too forward, they will be injured by the spring frosts.

To grow Hyacinths in Pots.—Early in October select the bulbs, and plant each one separately in a four-inch pot, well drained with potsherds, and filled within an inch of the top, with the same soil recommended for the beds. If the plants are to remain outdoors until rooted, place them in a dry level place, and cover them six inches deep with straw, decayed leaves, or cocoa-nut fibre, putting a piece of bass mat over to keep off rain; they will not require watering. In ten weeks they will have made sufficient roots, and may be brought into the house and watched carefully. If brought into the house directly they are potted, keep them in a moist dark atmosphere for ten weeks, then gradually expose them to the light, and give them water frequently.

To grow Hyacinths in Glasses.—Single flowering hyacinths are the best for this purpose. Fill the glasses with soft water (rain water is best), so as nearly to touch the bulb. Exclude the light totally from them for five weeks, by which time the glass ought to be full of roots; they may then be placed where they have plenty of light and an equable temperature. Do not change the water whilst they are in the dark, but when exposed to the light, pour out half the water in each glass once a week, and fill it up with fresh water, which

should have been kept for some time in the same room, that the temperature may be the same. A very little guano, mixed with the water, strengthens the plant.

To keep Heaths and Cinerarias. — HEATHS. — After they have done flowering, repot them carefully in one size larger than the pot they were in; peat and sand answer best. Strew the bottom with broken shreds of pots to insure drainage, and place them in a window facing the north or east (a staircase window is the best) during the summer. Water plentifully every day until the 1st of September, and every other day afterwards. If a heath is once suffered to get too dry it will die, and this is the reason why they are so difficult to manage. In summer they are too often left to the care of servants, who forget to water them regularly. Never put the plants out of doors unless they can be sheltered from wind and rain. They flourish best when kept in the house with a window open at the top. All plants are injured by draughts of cold air, which they often get in rooms where the doors are left open.

CINERARIAS.—Some people are apt to throw cinerarias aside in some corner as soon as they get exhausted with flowering, but this is a bad practice. They should be put in a close frame and fumigated thoroughly. Then take them out, remove all decayed foliage, and turn them out of the pots into a rich bed of soil, in some half-shady border. Here they will soon be free from insects; and in a month or so they will have fresh seedlings; these may then be potted, with a view to the next year's stock. This is a method which will suit the majority of gardeners, particularly amateurs.

How to Tame Young Canaries.—There is seldom much difficulty in taming young canaries, and making them so familiar that they will eat out of the hand of their mistress, come at her call, and remain perched on her head or shoulder while she walks about the house; and some of them will even plume and arrange their feathers, and warble as sweetly as while in their cage, although they are being carried from one room to another, and in the presence of strangers. This is very pleasant, and the little creatures seem to enjoy their liberty; but it is worthy of consideration whether the risk does not overbalance the pleasure. A window carelessly left open, a strange cat, a door suddenly slammed, all these may cause the loss of the pet so familiar and so trusting. A lady of our acquaintance had a canary which was a good songster, and a most attached pet; he was never happy unless when perched on his mistress's shoulder, would eat from her lips, and fly to her in a room full of visitors. The little creature was one day perched on the top of the dining-room door, when the sudden opening of the outer door caused a gust of wind which suddenly slammed the door on the top of which he was seated, and the poor little bird was crushed to death before his mistress's eyes.

The best way to tame a young bird is to keep it constantly beside you when working or writing; accustom the bird to having the hand put close to it, taking care never to startle it. Endeavour to get it to take hemp seed (of which they are very fond) from the fingers. When the cage is standing near the person who desires to tame the canary, it is a good plan, when the bird is quiet and no longer afraid, to open the cage door and lay a few cracked hemp seeds near it on the table; the bird will come out and hop about, but care must be taken that all is secure in the room, no open windows, no cat or dog present. It is also a good plan at night, when the bird is asleep, to put the hand into the cage, awaking it by bringing a light close to it, and then withdraw the hand with a gentle exclamation of fright when the bird pecks at it. He will thus consider himself the conqueror, and will cease to fear the invader. When this has been repeated two or three nights, the bird will be ready to fight the hand by

daylight when out of the cage, and will take a hemp-seed from the fingers. He will also learn to shake hands, if the claw be suddenly touched at night very gently, and the words "shake hands" repeated in soothing tones. The greatest gentleness is required, and a cracked hemp seed should be invariably given by the hand only of the person who is training the bird; it should not be mixed with the ordinary food, but used merely as a reward, and he will soon learn to take it from between the lips of his trainer.

A bird may be easily taught to simulate death by placing it on its back in the hand, where it will remain perfectly quiet until summoned to rise at its instructor's voice, when its reward must be ready for it. It is also recommended by bird keepers to remove all food from the canary's cage after it has gone to roost, and to offer it to the bird in the morning in the hand. It will soon lose its fear, and will fly to meet its owner.

Temper of Canaries.—It must be remembered that in these pretty creatures there is a great difference of temper and disposition, and the aptitude for learning is not equally great in all; indeed, in some cases it is extremely difficult, and much patience is required to make them accomplished. With young birds there is always a much greater chance of success, particularly if they have been reared by the person who tries to tame them.

To Pickle Capsicums.—Place the capsicums in a jar, boil a dessertspoonful of salt in a quart of vinegar, and pour it while hot upon the peppers; when cold, tie the jar over with a bladder or leather. The pickle will be quite fit for use in a few weeks.

To make Cayenne Pepper.—Cayenne pepper is better made from chilis than from capsicums, as their flavour is superior. Strip off the stalks from a hundred large chilis, put the pods into a colander, and set them before the fire to dry for twelve hours; then put them into a mortar with one-fourth their weight of salt, pound and rub them till they are as fine as possible, and put the powder into a well-stopped bottle. About two ounces of cayenne will be produced. Chilis are in good condition during the months of September and October. The plants may be bought in Covent Garden in the summer: they grow and ripen well in a room, and are quite ornamental, from the brilliant colour of the fruit.

To Clean Ivory Ornaments.—When ivory ornaments get yellow or dusky-looking, wash them well in soap and water, with a small brush to clean the carvings, and place them while wet in full sunshine; wet them for two or three days, several times a day, with soapy water, still keeping them in the sun; then wash them again, and they will be beautifully white. Ivory may be bleached by immersing it for a short time in water containing a little sulphurous acid, chloride of lime, or chlorine. The fumes of burning sulphur mixed with air are also effectual.

To Stain Ivory.—Ivory can be stained yellow by first steeping it in a solution of sugar of lead, and then in a solution of chromate of potass. It can be stained blue by using a weak solution of sulphate of indigo, or soluble Prussian blue. The red colour is produced by first steeping it in a solution of sulphate of iron, and then in one of tannic acid. Ivory staining is not generally well done by amateurs, and it is better to send the articles to a regular ivory turner. Judson & Son's sixpenny bottles of dyes answer well for many colours, and are so simple in the mode of using them, that any person may at least try what effect they produce on ivory.

Milk Punch.—Pare the rind off twelve lemons and two Seville oranges thinly; steep them in six pints of rum, brandy, or whisky for twenty-four hours, then add two pounds of loaf sugar, three pints of water, two nutmegs grated, and one pint of lemon juice. Stir it till the sugar is dissolved, then take three pints of new milk, boil-

ing hot, and pour over the ingredients; let it stand twelve hours closely covered; strain through a jelly-bag till quite clear, and bottle it.

A Richer Milk Punch.—Pare eighteen lemons very thin, infuse the peel in one quart of rum, and keep it closely covered. The next day squeeze the juice of the eighteen lemons over four pounds of white sugar: keep this also closely covered. The third day mix the ingredients together, and add three quarts more of rum (or one quart of rum and two quarts of brandy), five quarts of water that has been boiled, but is cold when added, and two quarts of boiling milk; stir for ten minutes, cover close, and let it stand for three hours, until quite cold; strain through a flannel bag two or three times till quite clear. In bottling, care should be taken that the corks fit tight, for if so it will keep three or four years.

A Few Hints on Packing.—In packing up a parcel of books, be careful, in order to preserve them from rubbing, to place a sheet of white paper over the cover of each, and pack the books together in such a way that one will bind the other, and thus form a secure parcel. Use abundance of wrapping-paper and strong cord. If the parcel exceeds twelve inches in breadth, draw a cord tightly, but not too much so, round the sides, which will materially aid in keeping it secure and compact. As a rule furniture and earthenware should be packed by those who are accustomed to it. The packing of flowers and fruit may be left in the hands of the gardener. Every packer should be very careful in driving nails into packed boxes; screws are much to be preferred. In packing articles which are liable to break, place the heaviest articles at the bottom, and see that plenty of straw, soft paper, and paper shavings are provided, wherewith to wrap up and separate each particular article. Packages of glass and other fragile materials ought to be marked "Brittle (or fragile), with care," in plain and conspicuous letters on the parcel, or packing case.

Furniture Polish.—The following is an excellent receipt for furniture paste polish:—Three ounces of white wax, half an ounce of Castile soap, one gill of turpentine. Shave the wax and soap very fine, and put the wax to the turpentine; let it stand twenty-four hours; then boil the soap in a gill of water, and add the wax and turpentine.

Furniture Oil, for taking out the marks left by hot dishes, stains of wet glasses, &c.—This may be made in the following manner:—Shellac varnish, four ounces; alkanet root, one ounce; linseed oil, one pound; spirits of turpentine, two ounces; wax, two ounces. Mix these all well together, and let them stand for a week. Apply the oil with a piece of flannel, and then rub briskly with a soft cloth. If the desired effect is not produced by the first application, it must be repeated day after day until a satisfactory result is obtained.

To Clean Silver Ornaments.—Boil them in soap and water for five minutes; then put them in a basin with the same hot soap and water, and scrub them gently with a very soft brush while hot; then rinse and dry with a linen rag. Heat a piece of common unglazed earthenware, or a piece of brick or tile in the fire; take it off, and place the ornaments upon it for the purpose of drying them, and causing every particle of moisture to evaporate; as the moisture, which otherwise would remain on the silver, will cause it to tarnish, or assume a greenish hue. All ornaments, whether gold or silver, can be kept from tarnishing if they are carefully covered from the air in box-wood sawdust, which will also dry them after being washed.

To Dress Whitebait.—The favourite way in the London dining-houses is to fry whitebait. Throw them into salt and water for a few minutes, take them out with a fish-slice (they must not be touched with the hand), throw them on to a cloth well covered with dry flour, toss them about in it for a few minutes, then

shake off the superfluous flour by putting them into a piece of coarse muslin and shaking them in it; have a pan of boiling lard ready, put them in a few at a time, and fry for about two minutes; they must not be brown; take them out and dry them on blotting-paper before the fire. Serve with lemon and cayenne, and thin slices of brown bread and butter.

How to Dress Old Fowls.—If old fowls are obliged to be killed for the table, try the following receipt for braizing them, and you will find that they are even better than roast chicken. It does not matter how old the fowl is. Let it hang for a few days; then lard it with bacon in the same way guinea-fowl is done; put it in a stew-pan with a close-fitting lid, or into a digester, with pepper, salt, some shreds of bacon, and a little seasoning; but no water is to be used. Stew gently for a couple of hours; make a rich brown gravy with bones, seasoned with onions, and put it to the braize before serving. Guinea-fowls done in this way are capital, and there is an old saying, "A turkey boiled is a turkey spoiled, but a turkey braized is a turkey praised!"

To Preserve the Binding of School Books.—The best way to preserve the binding of school books is to take the book and open it out flat, and mark the size exactly on the inner side of a piece of American cloth; then cut it out; and then cut two pieces for the inner sides of the book a little less than the width; bind all three pieces separately all round with ribbon. Then sew the pieces together on three sides at each end of the long piece, leaving a space in the centre; turn the covers of the book back, and slip them into the American cloth cover; and, if cut out well, it will fit as well as the original binding. Books so covered can be used for some years, and the binding will be found to be nearly perfect. It answers especially for children's school books, and the American cloth is very easy to work, and looks well for a considerable length of time.

To Cure Redness and Burning of the Hands.—Redness and burning of the hands is caused by defective circulation. The best remedy is to protect them as much as possible from the cold when out of doors, by using a muff or by wearing two pairs of gloves, which are much warmer than one pair lined. To prevent the burning sensation, hold the hands for a few minutes in very warm water after coming in, as that generally produces a feeling of coolness afterwards, whereas cold water causes a glow after it has been used.

New Mixture for the Hands.—A mixture of glycerine and rose-water is very beneficial for red hands. The quantities are about two-thirds of rose-water to one-third of glycerine, to be rubbed on the hands after washing.

To Destroy Fleas in Dogs.—An excellent remedy is to rub olive oil into the dog's coat, so as to saturate the hair to the surface of the skin; then to let it remain on for half an hour, and wash it well out with the best yellow soap and warm water. A small portion of any sweet oil brushed into the coat of a woolly dog will effectually prevent its being infected with vermin.

New Method of Destroying Bugs and other Insects.—An excellent remedy against bugs and similar insects, such as infest houses, is petroleum or paraffine. A simple wash of the oil in the resorts of the vermin will be found quite sufficient to destroy them.

New and Simple Cure for the Sting of a Wasp.—A correspondent of the London *Standard*, referring to a case of death from a wasp's sting, states that a slice of common onion rubbed on the sting, or, if in the throat, chewed slowly and the piece swallowed, is a certain cure. He adds that a case occurred in his expeperience a few years ago, when a poor woman was stung in the throat by swallowing a wasp in some beer. She at once partook of some onion, and the swelling was checked directly, and the pain soon after became abated.

Winter.

Blow, winter wind! your surly roar
Is hearty, if your pinch be keen;
Sound your storm tocsin in the pines,
And churn to foam the billows green.

Far out at sea I've heard you pipe;
I've battled with you on the hill,
And in the strife my spirit rose
O'er every common, vulgar ill.

But never do I hear you howl
With pleasure truer, fuller, higher,
Than when, with friend, or book, or work,
I sit beside my parlour fire.

* * * * * *

Soft falling snow! The air is dim
With flakes that sail, that whirl, that fall;
They've gemmed the bushes, roofed the church,
Half hid the many-gabled Hall.

How often have we mused, when we
Were wise philosophers of seven,
From what wide storehouse in the skies
Came those white visitors from heaven?

How often have we rushed elate
Across the frozen lake, and thrilled
With a wild pleasure as we've skimmed
The waves by Winter fixed and stilled!

* * * * * *

But prosier or more selfish grown,
From fret of care or worldly vices,
We shun the snows, and in champagne
We take, in little bits, our ices.

D. Murray Smith.

The Month of November.

"No warmth, no cheerfulness, no healthful ease,
No comfortable feel in any member;
No shade, no shine, no butterflies, no bees,
No fruits, no flowers, no leaves, no birds,
November!"

Tom Hood.

This is undoubtedly the gloomiest month in the year. Black fogs, leaden skies, torrents of rain, and storms that shake the last remnants of leaves off the trees, are the characteristics of this month. Summer and autumn have indeed departed, and gloomy winter draws near with rapid strides. November had two Saxon names, Wint monath, or wind month, from the constant storms, in which the frail barks of our ancestors had little chance of life; and Blot monath, *i.e.*, blood month, from the custom of killing about this time all the cattle they required to salt and lay by for their winter sustenance.

The aspect of the fields and gardens is dreary in the extreme; the flowers are all gone, and most of the leaves have followed, lying in every hollow, dank and desolate. The song of the bird is hushed, the lively squirrel and pretty dormouse are curled up for their long winter sleep, and the only sound of life in the air is the screaming of the wild geese, as they follow their leader to the low-lying marshy fens, or the wild cry of the heron, who roams in search of food far from his accustomed haunts, and may be sometimes seen perched on a stone at the edge of a lake or stream, motionless as a statue, but ready at the slightest alarm to flap his heavy wings, and, uttering a discordant scream, sail quickly out of sight.

The moorland is covered with the gold and scarlet hues of the decaying ferns and wild plants, many of which are very brilliant in their dying colours; and the bare hedges have still a little beauty left in the bright berries of the holly, ivy, privet, guelder rose, bird cherry, and mountain ash; and, above all others, the dogwood, with its purple

berries, and gold, green, and crimson leaves, helps to enliven the desolate landscape.

Towards the end of the month the skylark, on the very rare sunny days, breaks out into his sweet song, as if to prevent us from forgetting that summer will come again.

Cook's Calendar for November.—Fish in Season.—Brill, turbot, plaice, soles, dory, halibut, gurnards, haddock, cod, ling, pike, skate, whiting, herrings, sprats, crabs, lobsters, prawns, shrimps, oysters.

Meat in Season.—Beef, mutton, veal, pork, and doe venison.

Poultry in Season.—Fowls, ducks, chickens, geese, turkeys, pigeons.

Game in Season.—Moor fowl or blackcock, grouse, hares, partridges, wild ducks, teal, widgeon, pheasants, woodcock, snipe, plover, rabbits, wild geese.

Fruit in Season.—Apples, pears, chestnuts, hazel nuts, walnuts, bullaces, grapes, medlars, almonds.

Vegetables in Season.—Winter spinach, carrots, cabbages, Jerusalem artichokes, celery, endive, winter salad, leeks, savoys, turnips, parsnips, beet-root, onions.

Gardener's Calendar for November.—In November all the alterations in gardens, lawns, and pleasure-grounds should be carried out; the making of gravel walks, planting of box edgings, and general improvements of every kind, ought now to be made. Roses, shrubs, and fruit-trees should be planted, and wall-fruit trees and climbing plants pruned and trained; the digging and trenching for spring crops ought to be done; earth up celery, plant the first crop of potatoes six inches deep in a dry spot; these may be covered with straw if the winter be severe. A few early peas and beans may be sown in a sunny spot; plant out cabbages, and see to the constant sweeping up of fallen leaves, which should be put with the refuse of the garden to form compost; plant cuttings of gooseberry and currant bushes, and select the briars to form stocks for standard roses, that they may be planted for spring grafting. Continue to plant out bulbs as directed last month; lay up dahlia roots in a dry cellar, and guard them equally from frost and heat; pot layers of carnations and pinks; cut down hollyhocks, and take off young plants. In gardens and orchards where rabbits have access, they frequently nibble off the bark of fruit-trees as high from the ground as they can reach; to prevent this, it is a good plan to wash the stems of the trees about two feet up with hot lime and water. This destroys many insects as well as keeps off the rabbits.

Remarks on Hashes and Minces.—"What is to be done with the cold mutton?" This is a sentence frequently heard from the lips of the housekeeper who wishes to economize the funds at her disposal, and at the same time to set before her family a dish that is nice and appetising in appearance, as well as nourishing and palatable.

Few things require greater care and nicety than what is called "secondary cookery." The gravy in which the meat is to be heated (not boiled) is the first important point; and as the mode of preparing this is the same, whether the meat be cooked or fresh, we shall begin by giving a few receipts, all of which have the merit of being inexpensive.

A Rich Brown Gravy.—Put into a stew-pan two pounds of shin of beef, with a slice of lean bacon, or a ham bone, and the bones and trimmings of the meat to be hashed; add to it three shalots, two blades of mace, a little whole allspice and pepper, with a large onion which has been sliced and fried a good brown; cut the meat into small pieces and let it stew for two hours in two pints of water; then strain it through a hair sieve that has been well soaked in cold water. This will remove the fat; but gravies, like soups, are better for being made the day before they are required, and carefully skimmed from the fat before being heated again. This gravy is suitable for all brown meats.

Beef Collops.—Cut a tender rump-steak into thin pieces, about three or four inches square, beat them with a rolling-pin, dredge them well with flour, and fry them in butter to a light brown, lay them in a stew-pan, and put to them a pint of brown gravy prepared as above; half a pint of nice fresh button mushrooms, and a little salt and pepper. Thicken with a small bit of butter rolled in flour, and if not sufficiently brown, add a small spoonful of the browning recommended for soup. Serve very hot.

Beef Hash.—Take nice slices of cold sirloin or ribs of beef, cut off all the outside brown and gristle, make with these and the bones a brown gravy as directed; cut a good-sized carrot and turnip in small pieces; stew till tender; lay the slices of meat in a stew-pan with the carrot and turnip; pour over a pint of the gravy, thickened with a bit of butter rolled in flour, half a dozen pickled mushrooms, and three pickled walnuts cut in half. Set the stew-pan by the fire until the meat is thoroughly heated, but do not let it boil.

Beef Rissoles.—Mince some cold roast beef fine, add rather more than half as much bread-crumbs as meat, a little minced lemon peel and chopped parsley, with salt, pepper, and sweet herbs minced, to taste. Make into a paste with two or more eggs, according to the quantity of meat; roll up into balls, and fry a rich brown; thicken a little good brown gravy, add to it a dessert-spoonful of Worcester sauce, and pour it round the rissoles in a very hot dish.

Minced Collops. — A favourite Scotch dish. Take two pounds of good beefsteak, mince it quite fine, and free from fat or skin; put it into a deep frying-pan with a good-sized piece of butter. As the butter melts, stir the mince about with a silver fork, so as to separate the particles and give the mince a granulated appearance; as soon as the meat looks white, put in a teacupful of clear gravy, a little pepper and salt, and either mushroom ketchup or Worcester sauce enough to flavour it; a minced onion may be used if there is no objection to its taste. Stir the mince about till the gravy begins to boil, then serve with toasted sippets.

White Gravy for Minced Veal, Fowl, etc.—Cut into small pieces about three pounds of lean veal and a slice of lean ham or bacon (a ham bone is excellent for giving a flavour); put these into a stew-pan with any trimmings or remains of cold fowl, a bunch of sweet herbs, a large onion bruised, a blade of mace, a little salt, and three pints of water. Let this stew for four hours gently, then strain like the brown sauce. This is the foundation of all white sauces—such as Béchamel, and other choice sauces for fricassees, &c.

Flavourings. — Lemon juice and peel are used in flavouring minced veal; also mace and nutmeg, which are the proper spices for white meat; in other respects it is dressed like minced mutton.

Veal Croquets. — Minced veal makes very nice croquets, and a little lean ham minced with the veal is a great improvement. Season with grated lemon peel and mace. Make some plain paste with egg, flour, water, a little salt and a little butter melted in the water; roll it out flat, the thickness of half a crown; cut it in small squares; place a little heap of meat on each so as to be able to fold up the paste over it, make the edges stick well together with a little white of egg; trim them a regular shape, fry in lard, and serve on a napkin with fried parsley. The chief element of success in this form of serving mince-meat is the thinness of the paste.

Veal Patties.—Mince some underdone veal with a third as much ham as veal; season with salt, mace, cayenne, and grated lemon peel; moisten with equal parts of white sauce and cream. Make a paste as if for mince pies; cover mince pie pans with it, and put into each sufficient of the mince meat to fill them; cover with the paste, and serve hot. These are very nice for supper. An oyster in each pie is a great improvement.

Mayonnaise, for Cold Chicken or Fish.—A French receipt. Break the yolk of an egg, free from the white, into a basin; blend it with a silver fork, and add a single drop of olive oil at a time, stirring it continually until there are about three tablespoonfuls of oil mixed with the egg; add pepper and salt, pounded anchovies, or sardines, if preferred. Lay the chicken or fish in slices in a deep dish, and pour the mayonnaise over it.

Haricot Mutton.—Cut the best end of the neck of mutton into nice chops, take off the fat, and beat the chops with a rolling-pin to make them tender. Fry them to a nice brown; when they are done, remove them from the pan and slice into it two large onions; fry these brown; wash and cut into small pieces two large carrots, two turnips, and one head of celery. Boil them till tender; take some of the meat of the scrag end of the neck of mutton, and with it make some savoury forcemeat; or have a pound of nice sausages, take them out of the skins, and make them into balls with flour; fry them nicely, then put into a stew-pan a pint of brown gravy with a dessert-spoonful of flour blended in it, a little pepper and salt, a tablespoonful of mushroom ketchup, some fresh button mushrooms, and the sliced vegetables with the fried onions. Let these just come to a boil, then put in the chops and forcemeat balls, with half a large glass of port wine. Serve very hot.

Minced Mutton or Beef. — Having picked out the meat free from fat, &c., mince it as fine as possible with a double-handled mincing knife or a mincing machine; sprinkle it with flour, pepper, salt, and a little powdered spice, according to taste; then put the mince into a saucepan with a lump of butter, and moisten it with stock or broth till it is of the desired consistency. Some tomato sauce, walnut or mushroom ketchup, Worcester or other sauce, may be added with advantage if in due proportions. A squeeze of lemon or a little tarragon vinegar may be used instead of tomato sauce, but no acid imparts so pleasant a flavour to a dish of this kind, and in fact to all kinds of hashes, as that of tomatoes. The only thing to know is how much of it to put in. This must be learned by practice. The mince should be kept in the saucepan at a gentle heat for half an hour before serving; it should not be allowed to boil.

To serve Mince.—A wall of mashed potatoes, or of rice, is very nice to enclose a mince upon its dish. The mashed potatoes should be made rather hard, so as to stand up well; they may be browned or not, according to fancy. Smear the outside of the wall with a beaten-up egg to help the browning.

Rice for this purpose should be cooked in the following way:—Put into a saucepan as much rice, picked clean and washed, as is required, with enough cold water to cover it. Let it remain on the fire until all the water is absorbed, then add pepper and salt, a piece of butter, and a handful of grated Parmesan cheese; moisten with more hot water if the rice seems to require it; stir it thoroughly to mix all the ingredients; then build the wall. Stock or broth may be used instead of hot water. In addition to the above, some tomato sauce may be put in, or, instead of it, a pinch of saffron may be steeped some hours in hot water, which, after being strained, is put into the rice. The Parmesan cheese, besides adding to the taste, has the effect of binding the grains together. In lieu of cheese one or two eggs may be worked into the rice a few minutes before serving.

Stewed Hare. — Cut up pieces of hare that have been left as underdone, or take part of the hind-quarters of a hare that is to be made into soup. Cut the pieces about two inches square. Take also half a pound of lean ham cut into pieces about the same size; fry the ham to a light brown in an ounce of butter; then remove it from the frying-pan and put in the pieces of hare and fry them ten minutes; dredge in two ounces of flour; add a large glass of common claret and a pint of good gravy. Put these, with the

hare, into a stew-pan and stew for five minutes, then put in a bunch of sweet herbs tied together; the bacon, a pinch of salt, and three pinches of pepper. Cover the stew-pan close, and simmer for a quarter of an hour. Fry twenty very small onions in butter, add them to the stew, and simmer it till they are soft. When nearly ready to serve, take out the herbs and skim off any fat. Put in half a pint of nice mushrooms, and, as soon as they are cooked enough, serve.

Macaroni and Veal Pie. — Boil some macaroni in milk and water until quite tender. Turn it out on a sieve and let it drain; then cut it into pieces of half an inch long. Line a raised pork pie mould with paste, fill it with flour, and put it into the oven to bake till the paste is of a pale brown; when done, scrape out all the flour. Cut up some fowl or veal, which has been cooked before, into small pieces, with some bacon or ham; take a pint of white gravy, or some milk thickened with butter and flour, and seasoned with pepper and salt, will do as well. Put the meat into this gravy, and set it on the fire till it just boils; put a layer of this meat into the mould, then a layer of macaroni and one of grated Parmesan cheese, and repeat these layers till the mould is quite full, taking care that the top layer be of cheese. Put the mould and its contents into the oven till quite heated through, and when taken out, hold a salamander over the top to brown it, or put it in a Dutch oven before the fire. Open the mould and take the shape out.

A very nice way to arrange this dish is, instead of the raised paste, to take a large vegetable marrow. Cut it in half, lengthways; peel and parboil it without removing the seeds; when almost soft, take it up; take out the seeds, and fill the boat-like shells with meat, cheese, and macaroni, as above, and bake in the same way. It is very good without the macaroni, in which case, it will require to have one-third of bread crumbs mixed with the meat.

Timbale of Macaroni. — Boil the macaroni in milk and water for three or four minutes; butter a plain mould, and put the macaroni in rows all round. As you put in the macaroni fill the mould up with forcemeat made as follows:—Chicken, veal, or any dressed meat, and a little ham or bacon, pounded very fine, and seasoned with lemon peel, two or three small leaves of sage, cut very fine, two or three cloves, a little mace and nutmeg, and a small onion chopped very fine, with salt and pepper to taste. Mix up these ingredients with two eggs, steam the shape about an hour and a quarter, turn it out of the mould, and serve with white sauce round it.

Bengal Curry.—The following admirable directions for making a Bengal appeared in the *Field*. They are so good that we make no excuse for inserting them in the "Best of Everything." It will be observed that the price of each ingredient is given.

The Curry Powder. — Twelve ounces best turmeric, 1s.; eight ounces coriander seed, 9d.; six ounces very best ginger, 9d.; five ounces mustard, 7d.; five ounces black pepper, 5d.; one and a half ounces cayenne, 6d.; half an ounce cardamums, 6d.; half an ounce cummin, 2d.; half an ounce cinnamon, 3d.; quarter of an ounce pimento, 1d.; in all, thirty-nine and a quarter ounces, costing 5s.; all finely powdered and put in separate parcels. Put these ingredients into a large bowl and thoroughly mix them together. Get a number of small bottles ready, into which place the powder, and press it down; and if corks are used, let them be carefully sealed, so as to exclude the air entirely; one bottle at a time only is to be opened for use. Having secured the curry powder at a cost of about three halfpence per ounce, let us now proceed to cook the meat and boil the rice.

To Cook the Meat.—As a rule a knife is never employed when eating a curry, as it is always so thoroughly cooked that a fork and spoon only are required. The time for cooking varies

according to the kind of meat used. For example, let us take four pounds of the lean part of the breast of veal. Cut this into small pieces, and put them into a saucepan with an ounce of sweet butter, two large tablespoonfuls of curry powder, two large onions cut very fine, four or five small cloves of garlic chopped up finely, and some nice streaky bacon cut up into small thin slices. Stir all up together and put it on a gentle fire, covering the saucepan, and only uncovering it to stir it, which should be done very frequently. The heat speedily draws out the juices of the meat, forming sufficient gravy to prevent burning. After a while let the saucepan be drawn almost off the fire, so as to keep the contents at a gentle simmer only, and continue at this until the gravy is pretty well dried up, when a large-sized breakfast cupful of fresh milk is to be added (gradually, so as not to cool it down too much), and salt to taste. The saucepan is again placed on the fire for a few moments, to bring it rapidly to the boil, then drawn back and kept once more gently simmering until quite done, stirring very frequently. It should occupy three to four hours in cooking, and never be "galloped." When served up to table it ought to be as hot as possible, but all the fat must be previously skimmed off. It is well to remember that this "curry fat" is far better than butter for frying fish with.

The Rice for Curry.—Half an hour before the curry is to be used, begin to cook the rice. Fine Patna or Carolina is the best, of which take one measure, adding three measures of water; boil rapidly; never stir or shake it up. When it is perceived that water no longer shows on the rice, draw the saucepan on to the hob, and give a little time for the rice to dry, which it soon does, when it will all turn out beautifully cooked, and each grain will separate. This is the only proper mode of cooking rice. In serving up, the curry should be in one (covered) side dish, the rice in another, and both quite hot. Whoever follows these instructions will always have curry and rice fit to eat.

The above receipt is by a gentleman who was many years resident in the East Indies.

Cingalese Curry.—Take two ounces of coriander-seed, one ounce of dried chilis, one ounce of turmeric, a quarter of an ounce of cinnamon; pound all these well up in a mortar, with a little salt. Fry a chicken cut in pieces, or a rabbit, in two ounces of fresh butter, along with two large onions cut in slices. When browned slightly, take out the meat, lay it in a stew-pan, mix the powder with half a pint of white gravy, pour it into the frying-pan for a few minutes, then pour it all over the meat in the stew-pan. Add a pint of milk, with a little butter rolled in flour, to thicken it slightly. When ready to serve, add a tablespoonful of lime-juice, pile the meat in the centre of the dish, pour the gravy round it, and let the rice be in a separate dish. Fish makes an excellent curry done in this way.

To Prepare Sheepskins for Mats.—Make a strong lather with hot water, and let it stand till cold; wash the fresh skin in it, carefully squeezing out all the dirt from the wool; wash it in cold water till all the soap is taken out. Dissolve a pound each of salt and alum in two gallons of hot water, and put the skin into a tub sufficient to cover it; let it soak for twelve hours, and hang it over a pole to drain. When well drained, stretch it carefully on a board to dry, and stretch several times while drying. Before it is quite dry, sprinkle on the flesh side one ounce each of finely pulverized alum and saltpetre, rubbing it in well. Try if the wool be firm on the skin; if not, let it remain a day or two, then rub again with alum; fold the flesh sides together and hang in the shade for two or three days, turning them over each day till quite dry. Scrape the flesh side with a blunt knife, and rub it with pumice or rotten stone. Very beautiful mittens can be made of lambskins prepared in this way.

A Few Words on the Eyesight.—There are several forms in which defective sight occurs, and in which it may be said that all people are more or less interested: some of these defects are capable of being in a considerable degree remedied; others, however—the causes of which are little understood,—do not, so far as our present knowledge extends, seem to admit of cure. Among these defects of vision are long and short sightedness, colour-blindness, &c., to which a brief reference is desirable.

Long-sightedness. — This arises from a diminution of the refracting power of the eye, arising either from the too great flatness of the eye, or some other sufficient cause. It frequently comes on as age advances. This defect is caused by the circumstance that the focus of the eye is behind the retina, and the picture of the outward object is, therefore, imperfectly formed on the retina. This defect, however, and the defect referred to in the following paragraph, are capable of being remedied by artificial means.

Short-sightedness.—This defect is the converse of that just referred to. The condition of the eye which produces it is most frequent in young people. It consists either of too great convexity in the eye, or too much refractive power, arising from that convexity or from some other cause. By reason of the superior refractive power existing in these cases, the rays of light forming the pictures of external objects cross each other and begin to diverge before they fall on the retina, and, as a consequence, the objects are indistinctly visible.

Colour-blindness is a defect in the organs of vision, and is much more prevalent than is commonly supposed. It consists of inability to perceive a single colour, such as red, or to discriminate between two colours, such as red and green; so that a person labouring under this defect may be said to be blind as regards the one or other of the colours not perceived.

Dr. Nicholl describes the case of a boy who always confounded green with red, and called light red and pink blue. His maternal grandfather and an uncle had the same imperfection. The uncle was in the navy, and on one occasion purchased a pair of red breeches to match his blue coat! Dr. Nicholl also mentions the case of a gentleman to whom the grass in full verdure appeared what others call red, and who could not see any difference in colour between ripe fruit on the trees and the leaves which were around it; a green cucumber was to him of the same hue as that of a boiled lobster, and a leek resembled a stick of sealing-wax!

Colour-blindness, in short, may be said to be an inability correctly to discern any colour strictly so called; so that black and white are the only varieties of tint that are perceived. Under the influence of this deficiency of vision, external objects present very much the same effect as that of a drawing executed in Indian ink, or black-lead pencil, in which shade, form, and distance are accurately represented, without the various colours which ordinary vision enables us to perceive.

Night-blindness is a condition in which, towards evening, some persons find themselves either unable to see external objects with distinctness, or become entirely blind. This occurs without any previous warning, but frequently passes off the following day; but as the attack continues to be repeated every evening, the eyes generally become weak, and the power of sight becomes much diminished.

Day-blindness is inability to see distinctly in a bright light, and those subject to this defect are frequently under the necessity of being led about during the day, although during the evening, and at night, their power of sight is not only not defective, but unusually acute.

Blindness.—By this expression we understand those who have either been born blind, or, which is very much the same thing, who have entirely lost their sight either in infancy or maturer years. Of these it would appear, from

the last census, that there were about 30,000 in the United Kingdom, and, what is very remarkable, that the number of the blind, as compared with those who see, is about one to every thousand of the latter. There are certain districts in which the ratio referred to is extremely different, from causes of the operation of which we are very inadequately informed. Thus, in certain insular situations, the ratio of the blind to the seeing is greatly higher than in some inland localities; for example, in the Isle of Man, and in the Channel Islands, the number of the blind is one to every eight hundred and thirty-seven of the population; whereas in Yorkshire the ratio is much lower, being only one in every twelve hundred and thirty-one. Moreover, it appears that of the whole number of the blind in this country, a large majority belong to the humbler classes, and especially those exposed to the inclemency of the weather, and those whose station in life exposes them to the necessity of unremitting toil, and particularly such toil as involves a strain on the organs of vision—domestic servants, miners, masons, sempstresses, soldiers, and labourers. It appears, likewise, that among the upper and middle classes not exposed to the causes referred to, blindness is comparatively rare.

Blindness is a great calamity; but if we venture to compare it with the affliction of being deaf and dumb, it appears much less grievous. A blind man can be talked to and read to; he can be placed in immediate communication with the world around him; he cannot, it is true, behold forms and colours, but a vast number of enjoyments other than those supplied by sight are open to him: he may occupy himself in intellectual research, and he may enjoy literary pleasures, domestic and social converse, vocal and instrumental music, from some of which sources of enjoyment the deaf and dumb are, by the nature of their infirmity, wholly debarred, and some of which are accessible to them only in a very imperfect manner. Those who have possessed their eyesight for some years, and have afterwards lost it, are in a very different position from those who have never enjoyed the power of vision at all. Although the sense of sight be lost, memory remains, and perpetuates for them the appearance, the colour, the form, the movements of outward objects; whereas those born blind are utterly unable to form any distinct idea of colour,—in a word, of the visible appearance of external objects.

Notwithstanding all the various disadvantages under which the blind labour, much has been successfully done to alleviate their condition, and supply, as far as is possible, the sense they have lost.

Various Systems of Printing have been devised for them, in which the words and letters are raised above the level of the paper, and may be felt; and so acute has become in many instances the sense of touch, that the words thus printed are read by the blind with marvellous facility. It is true that people differ from one another as to the relative value of the various systems of printing for the blind; but it is satisfactory to remember that however zealously the partisans of each system support their own views, their very zeal itself affords an evidence of their common anxiety to promote the best interests of those who are deprived of the invaluable blessing of sight. In the various institutions for the blind their education is carefully attended to. They are instructed in the art of reading, writing, and ciphering. Religious knowledge is communicated to them. They are taught history, geography, and vocal as well as instrumental music. In addition to all the care thus devoted to their intellectual and moral well-being, suitable employments are provided, by means of which many of them become extremely expert and skilful in various departments of useful industry. Much has been already done intellectually, morally, and physically, for the blind; and although, doubtless, more may yet be effected, yet it

may be truly affirmed, that the benevolent and philanthropic efforts that have been made, have been no less an honour to those by whom they have been carried out, than to the age itself in which we live.

New Description of Spectacles.—The immense advantages arising from the application of the principles of optics to practical purposes are nowhere more obvious than in the construction of artificial means of obviating some of the most common defects of the human eye, such as inability to perceive distant objects, although those near at hand may be seen with perfect distinctness; or the opposite defect, in which near objects, such as the letters of a book, can be seen only very indistinctly, while remote objects can be distinguished with great clearness and accuracy. The remedy for these defects is, of course, spectacles, of which the lenses possess the degree of concavity or of convexity required in each particular case, and which degree of defect can be accurately ascertained only by trial and experiment. We desire, however, to recommend to such of our readers as may require these invaluable aids to correct vision, those lenses known as "periscopic."

The Periscopic Lenses.—These will be found a very great improvement, especially in the case of concave spectacles. The technical term *periscopic* means the *seeing round about*, and the person using these glasses does not require to turn his head directly towards the object he would look at; for they are so ground that the object is as distinctly seen when the eye looks at it through the glass to either side, as when it looks at it through the centre of the glass; and thus the awkwardness observable in the use of the ordinary glasses is obviated, in which the wearer must turn his head towards the object in order that the image of it shall be received through the middle or centre of the lens. These periscopic spectacles, accurately adjusted, can be readily obtained of any optician.

Laws respecting Rent.—A summary of the rules recognised by law on this subject can hardly fail to be useful to some of our readers. The relation of landlord and tenant is constituted by an arrangement between the parties which may be either in words or in writing, but a written agreement is always more desirable than one which is merely verbal, as it prevents mistakes on both sides. A written agreement ought always to be made if there be anything special or peculiar in the terms entered into; but as regards house property the contract need not be in writing unless the property is let for more than three years, and by the law of Scotland a verbal lease is good only for one year. If no special details are entered into beyond the amount of rent and the duration of the contract, certain rights nevertheless subsist between the lessor and the lessee, of which the following may be mentioned:—In England, if no agreement be made as to the time of paying the rent, it is due only at the end of each year; but the payment is usually made at the end of each quarter by an express arrangement to that effect, the times of payment being Lady day, or March the 25th, Midsummer day, or June the 24th, Michaelmas day, or September the 29th, and Christmas day, or December the 25th. By express agreement the rent is sometimes made payable in advance. The law of England gives a landlord very important privileges. To secure his rent he need not incur the delay or the expense incident to ordinary proceedings, but may at once seize the goods or furniture on the premises for which the rent is due, whether the goods or furniture belong to his tenant or to a stranger. Hence it is not unimportant for a person taking possession of any premises to see that no rent is due; for whatever property he puts into the premises becomes immediately liable for the rent previously due. There are, however, some important rules by which the privileges of the landlord in recovering his rent suffer qualification: for ex-

ample, a landlord cannot put a distress into a house till after the rent is due; in consequence of this, the tenant is not bound to pay his rent till the end of the year, and consequently he may avail himself of the last day of the year before his rent becomes due to remove his furniture or goods off the premises, in which case, according to law, the landlord's security is gone, unless he follow and seize the goods within thirty days after their removal. No articles used in trade, no articles such as the plough, a watch carried in the pocket, the books of a student, deeds, writings, loose money, or pawnbrokers' duplicates, can be distrained for rent due. In the event of a tenant's furniture or moveables being seized under an execution by other creditors, the landlord is entitled to be first paid out of the proceeds to the extent of one year's rent, if it be due. But the landlord has no title to break open the door of the tenant's house to seize the furniture for the rent due.

Rent in Scotland. — In Scotland rent is payable twice a year, viz., at the term of Whitsunday, or the 15th of May, and at Martinmas, or the 11th of November, unless a special agreement be entered into to the contrary. The landlord possesses the power of seizing on or sequestrating the tenant's goods for the current rent, although it may not have become due; but he cannot seize the goods of a sub-tenant if the sub-tenant has paid the rent he owed to the tenant; and the landlord's security over the goods removed from his property, must be put in force within three months after the rent is due, and he can follow and seize the goods at whatever place they may have been removed to.

Animal Poisons.—In this class of poisons are those conveyed by the bite or sting of various animals; or by using as food such as are either permanently or at certain times of a poisonous character. As a general rule, all animal poisons are more virulent and active in warm climates than in those that are temperate or cold.

The Bite of the Rattlesnake, the Cobra, and other serpents of the more venomous kinds is frequently followed by consequences which the utmost skill and promptitude can do little to counteract. In many instances the venom injected by the bite or sting is so extremely virulent as quickly to place the sufferer in a condition in which no relief whatever can be administered. The effects are such as these:—a sharp pain in the wound, which rapidly spreads to all the members, and even to the interior of the body; great swelling, at first hard and pale, then red, livid, gangrenous, and gradually increasing; fainting and vomiting; convulsions; a small, irregular, and rapid pulse; difficulty in breathing; cold sweats; disturbed sight; derangement of the intellectual faculties, and death. In hot climates, a wound from a venomous snake is often received in circumstances in which little or no help can be rendered, and the consequences are unavoidably fatal. But in all cases where it is possible to render prompt assistance the following measures ought to be instantly adopted. A ligature should be placed immediately above the wound, and a cupping-glass applied to the wound, and kept exhausted, so as to extract the poison, and prevent it being carried into the circulation. The application of the cupping-glass has been repeatedly proved capable of counteracting the injury; but if this cannot be had recourse to, a mixture of equal parts of oil and spirits of hartshorn, promptly applied to the wound and the swollen parts around it, will be found very efficacious, at the same time the spirits of hartshorn ought to be given internally in a dose of ten or twelve drops in a glassful of water every half-hour at first, and afterwards every two hours. An emetic of twenty grains of ipecacuanha powder, or of sulphate of zinc, has also been found of great use; and if there be vomiting, or a tendency to jaundice, a glassful of the decoction of bark ought to be administered every three hours, together with twelve drops of the hartshorn essence.

The Sting of the Scorpion and Centipede occasions no inconsiderable danger in hot climates. A red spot marks the place of the sting. This gradually enlarges and becomes black in the centre. Inflammation takes place, the part wounded swells, and becomes painful, and those symptoms are succeeded by alternate chills and fever, numbness, vomiting, hiccup, and great trembling. The treatment in these cases ought to be similar to that which is suggested in the cases already referred to. The spirits of hartshorn and oil ought to be applied to the wound, and the hartshorn taken internally as already prescribed; and a poultice of linseed meal, or of bread and milk, moistened with twenty drops of the hartshorn, ought to be laid over the wound, and renewed twice or thrice a day.

The Sting of the Wasp and Bee, which occasions comparatively little pain or swelling in temperate climates, may be safely and effectively treated by rubbing the part affected with a mixture of one part of spirits of hartshorn and two parts of olive oil.

Poisonous Fish.—Some kinds of fish are undoubtedly poisonous, but not at all times, nor to all persons. Indeed, there are fish which may be used as food with perfect impunity in cold and temperate climates, but which are by no means safe in tropical countries.

The Mussel, the Conger, and the Yellow-Billed Sprat, and some others, have been known to produce acute pains in the head, nausea, difficulty of breathing, a crimson eruption on the skin, itching all over the body, and fainting fits and convulsions. The last of the fishes above referred to has been known to prove fatal to those who have eaten it. The treatment in these and all such cases ought, in the first instance, to consist of the necessary efforts to remove from the stomach the deleterious substance, by means of an emetic of twenty grains of sulphate of zinc, or ten grains of sulphate of copper, dissolved in a little water. After these remedies have produced their effect, a tablespoonful should be given every quarter of an hour, of a mixture of two drachms of ether, a drachm of laudanum, and four ounces of mint water, or any other fluid at hand. A drink for the patient will also be found very useful, made of two tablespoonfuls of lemon juice, or vinegar, in half a pint of water.

Vegetable Poisons are of various kinds, and differ greatly in their energy and mode of action. The chief vegetable poisons which may here be mentioned are opium, hemlock, foxglove, strychnine, thorn-apple, henbane, deadly nightshade, poisonous mushrooms, and prussic acid; the last of these is the most energetic of all known poisons, a very small dose of it in a highly concentrated state being capable of destroying life so suddenly as to preclude all possibility of medical aid.

Opium, Hemlock, Henbane, and Deadly Nightshade are all narcotic poisons, and the first three are invaluable when used as medicines by a skilful physician, producing not only narcotic but sedative and anodyne effects of the greatest importance in the treatment of various ailments. In treating cases of poisoning by these or any other similar agents, the rule, already more than once mentioned, ought to be at once attended to, that of removing the poison from the stomach so far as that is practicable. For that end one of the most effective means is that of the stomach-pump; but in the absence of that instrument, an emetic ought to be instantly administered, consisting of a scruple of sulphate of zinc, or ten grains of sulphate of copper, dissolved in water, and repeated, if necessary, after an interval of fifteen minutes. The emetic ought not to be given a third time, but the throat may be tickled with the finger or a feather to produce vomiting, and cold water should be freely dashed over the face, neck, and breast of the patient; and if there be reason to apprehend that the poison has reached the bowels, a purgative injection ought to be given. The best antidotes to the vegetable poisons

above referred to are vinegar and lemon juice. These, however, ought not to be given till the stomach is emptied. After there is reason to believe that the poison is altogether ejected, or almost entirely so, a cup of water, strongly acidulated either with vinegar or lemon juice, should be given every five minutes, alternated with a cup of strong coffee; the limbs should be rubbed with rough flannel, or with a flesh-brush, and the narcotic influences produced by the poisons counteracted with ammonia, brandy, and such cordials as are likely to support and stimulate the system. All these remedies are within the reach of skilful and energetic friends; but a medical man of sufficient experience ought to be summoned without delay.

Poisoning by Foxglove, and by Diluted Prussic Acid, &c.—These require, as already stated, immediate measures to evacuate the stomach, and so to render the poisons swallowed comparatively inoperative. In the case of poisoning by foxglove, vinegar and warm water may be administered; twenty or thirty drops of laudanum may also be given frequently in a glass of brandy and water.

In Poisoning with Prussic Acid, if the poison be sufficient in quantity, although of the diluted acid, no assistance will be of avail; but if the immediate result be not fatal, an emetic, consisting of a scruple of sulphate of zinc, or of ten grains of sulphate of copper, should be promptly given; and, after the evacuation of the stomach, frequent draughts ought to be administered of strong coffee, and, at intervals of half an hour, three or four tablespoonfuls of oil of turpentine mixed with the coffee. Brandy, water of ammonia, and other cordials suited to stimulate and sustain the vital powers, will likewise be suitable. On all these points, however, the advice and assistance of a medical man are of the utmost value.

Pills.—For Acute Inflammation.—Calomel, ten grains; James's powder, ten grains; Turkey opium in powder, ten grains; conserve of hips, sufficient to make the whole into a mass to be divided into ten pills. These pills are of great service in inflammation of the lungs, bowels, or any other internal part. One can be given every second, third, or fourth hour.

Pills, Alterative.—Blue pill, twenty or thirty grains; tartar emetic, two grains; extract of hemlock, one drachm. Mix well, and divide into twenty pills, one to be taken every night or every second night. These pills are recommended by many of the most distinguished members of the medical faculty in this country, as being of very great efficacy in all bilious disorders, tumours of a scrofulous character, and all chronic maladies, by altering the morbid condition of the circulating system and correcting functional derangement, so as to check the progress of organic injury. One pill should be given every night or every second night for several weeks in succession.

Pills to relieve Pain and Local Irritation.—Compound ipecacuanha powder, two scruples; extract of hemlock, one drachm, mixed together and divided into twenty pills. One or two to be taken twice or thrice a day. The anodyne properties of these pills are very salutary in all maladies of a painful character.

Powders.—Purgative.—Calomel, two grains; jalap in powder and rhubarb in powder, of each five grains. Mix. It may be taken in any agreeable vehicle, such as a little black currant jelly.

Powders, Aperient.—Rhubarb powdered, six or eight grains; supersulphate of potass, eight grains. Mix. This is a mild laxative for children.

Powders, Emetic.—Ipecacuanha in powder, fifteen grains; tartar emetic, one grain. Mix.

Powders, for Fevers.—James's powder, four grains; calomel, one-fourth of a grain; compound powder of tragacanth, six grains. Mix. This is an excellent powder in all febrile ailments, as it possesses much power in promoting perspiration and cooling the

skin. It is of great value in the commencement of inflammatory fever, typhus, measles, and small-pox.

Drinks for Feverish Patients.—LEMONADE SYRUP.—Peel the rind from six lemons very thinly; squeeze out the juice and strain it; put into a preserving-pan one pound each of sugar and clarified honey, three ounces of tartaric acid, three gills of water, and the rind and juice of the lemons; boil all gently together till the sugar is quite dissolved, then strain it through fine muslin and bottle it.

A wineglassful in a tumbler of water makes a pleasant acid drink, and half a saltspoonful of carbonate of soda will make it effervesce.

JUDSON'S LIME-JUICE.—This lime-juice makes a most refreshing drink for a feverish person. A dessert-spoonful, with a tablespoonful of sugar, mixed in half a tumbler of water, makes an excellent, agreeable, and wholesome lemonade.

LAMPLOUGH'S PYRETIC SALINE is another effervescing draught, useful in fevers and sea-sickness. It is highly spoken of by several medical practitioners, and is agreeable to the palate, particularly when mixed with lime-juice and sugar, in the proportion of one teaspoonful of the pyretic saline to a dessert-spoonful of lime-juice, and the same quantity of sugar, in a tumbler of cold water.

The Game of Bagatelle.—This is an excellent game for a small room, and it may be said that a good-sized bagatelle board is better than a small billiard table. There are several games which can be played on the bagatelle board. The most common, and perhaps the best, is known as "bagatelle." It is played with nine balls, which are struck with the cue into holes near the further end of the board, and are numbered. The player who makes the greatest score in three "goes up" is the winner. When a ball happens to lie very near a hole, but does not immediately drop into it, the adversary is at liberty to "challenge" the ball; and if by shaking the board, or from any other cause, it drop into the hole, it must be replaced. The French game is usually played a hundred up. The players take their turn in striking, and count all they make till the striker fails to make a hole. To miss the red ball loses a point to the adversary. In some instances two coloured balls are used, each when lodged in a hole counting double.

In playing any of the games, it is necessary to strike the ball with a gentle, but at the same time a firm stroke. The cue ought to be held lightly between the finger and thumb, and the ball ought to be struck in the centre; but a modification of the side stroke may be introduced, although the division of the object-ball is usually employed to make the requisite angles. The player ought to remember that by playing too hard a ball he will probably fail to make the hole he aims at, although it is desirable that the stroke should be sufficiently strong to carry the ball beyond the hole in the event of missing the stroke.

The Game of Ecarte.—In presenting our readers with an account of this famous game, it is proper to remark that, in common with several other games of the same class, écarté contains elements which to explain and illustrate thoroughly would require a treatise of very considerable length. We shall, however, avoid any elaborate discussion of those doctrines on which success in this game depends, and omit as unnecessary any examples of games, confining ourselves to as brief and simple a statement as shall be consistent with perspicuity.

THE GAME is played by two persons, with a pack of cards, from which the deuce, three, four, five, and six of each suit are discarded. 1. The winner of three tricks scores one point, the winner of all the tricks scores two points. 2. Only two points can be scored in a single deal. 3. Five points scored are game. 4. The score is always marked on the side of the stakes. 5. Either a game or a rubber may be played; the latter consists of two games out of

three. 6. The money is always placed on the table. 7. The winner is obliged to give "a revenge;" but the loser may decline it. 8. Two packs of cards are usually played with. 9. The king is the highest card; the ace ranks next after the knave.

CUTTING.—1. The eldest hand deals; the turning up of the king scores a point to the dealer. There is some advantage in being dealer. 2. The eldest hand has the choice of cards, and this choice must continue throughout the game when once made. 3. The deal is decided by cutting and by the highest card so discovered. 4. If several cards are shown in cutting for deal, the lowest card is accounted the cut. 5. If any one shall neglect to show his cut he is supposed to have the lowest. 6. The cut is to be held as good, although the pack be incomplete. 7. A cut must consist of more than one card. 8. If a pack be found to have been incorrect, the deals preceding the discovery hold good.

DEALING.—1. Five cards are dealt to each player, and the eleventh is turned up; they are dealt by two and three, or three and two. 2. The card turned up indicates the suit of the trumps. 3. A trump is superior to every other card of another suit. 4. The mode of dealing at the outset cannot without notice be altered. 5. If it be altered, the adversary has a right to call a fresh deal if he has not seen his hand. 6. The remainder of the pack is to be placed on the right, and the rejected cards on the left of the dealer. 7. The dealer ought always to shuffle, and the adversary to cut the cards, and the cards may be shuffled each time they are presented for cutting. 8. The party receiving cards plays first. 9. The holder of the king ought to announce in a distinct manner that he has the king. 10. If a player deals out of his turn, and the mistake is noticed before the trump is turned up, there must be a fresh deal by the proper dealer, but in certain cases the deal holds good. 11. A player is obliged to take back his card if he plays before his turn. 12. When a player is dissatisfied with his hand, he proposes to take other cards, saying, "Je propose," and the dealer may accept or refuse the proposal. There are various other rules, which for brevity's sake we omit.

MISDEALING.—On this subject there are various rules, of which we shall now mention the most important. 1. When, instead of one card, two or more are turned up by the dealer, the player is entitled to select the card which ought to be the trump, or put the cards aside, and take the next remaining on the pack for trump, or recommence the hand, taking the deal, provided he has not seen his hand. 2. If the dealer turn up one or more cards of his adversary's hand, he is required to complete the dealing; but his adversary has the option of recommencing the hand, taking the dealing, or holding the deal to be good. 3. If it be the dealer's cards that are exposed, neither party has the choice of recommencing the deal. 4. If this occur after the change, the party who has exposed the cards cannot recommence the deal, he can only require another card or more as the case may be. 5. If after changing, the dealer turn up a card as if it were a trump at the beginning of the hand, he can neither refuse a fresh change to his adversary, nor give him the card so turned up. 6. In misdealing the entire hand (which is the first hand dealt by each dealer), if too few or too many cards be dealt, the adversary has a right to recommence the hand, &c. 7. And in the case of misdealing after changing cards, a variety of rules are laid down to meet each particular case, and certain penalties are incurred. Of these rules the following are examples. 1. Before receiving fresh cards, each player puts those he rejects on one side, and is not permitted to look at them. 2. The colour announced must be played; if any other suit be played the adversary may require the player to retake his card, and play the suit announced. 3. But if the adversary shall consider the card played more favourable to him than the suit announced, he may refuse

to permit it to be taken back. 4. If any player announces the king without having it he loses a point. 5. The adversary's tricks are not to be looked at. 6. If a player throw his cards on the table, either by mistake or intentionally, he loses one point; and if he has not made a trick two points; and the cards are regarded as thrown on the table if a player lowers them in order that his adversary may see them. 7. If a player quits his game he is held to lose it. 8. If a faced card is found in the pack, and it is perceived in dealing, the deal is null, except in the case in which the card is the eleventh. 9. If the card be perceived after the écart, and the party receiving cards obtains the faced card, he may keep it, or begin the deal anew and take the dealing. 10. And if the faced card fall to the dealer, or if it should remain unperceived, the deal holds good. 11. Revoking is not allowed, and the player who revokes must retake his card, and the hand must be played over again.

Terms used in the Game.—A number of French terms are used in the game, of which the following are most frequently employed. *Atout*, trump; *couper*, to cut; *donner*, to deal; *écart*, the cards rejected; *forcer*, to play a superior card on an inferior; *la rôle*, to make all the tricks; *le point*, one score of the five that make game; *proposer*, to ask fresh hands; *renoncer*, not to answer the suit led; *retourner*, when the cards are dealt to turn up the first of the *talon*, *i.e.*, the remains of the pack after distribution to each player.

The Game of Cribbage.—This game is played with a complete pack of cards, and is generally played by two persons, but there are modes of playing the game in which three and four persons may be engaged in the contest. In order to play, a "cribbage-board" is required, on which there are sixty holes, in two rows of thirty on each side. Two pegs fitting these holes are appropriated to each player, and with these he marks his score, beginning at the outside row of holes, and passing along to the upper part of it and down the inner row to the hole near the end of that row, and which is called the game-hole, making in all sixty-one points, for game. Each row of holes is subdivided into six compartments of five holes each. The pegs of the one party generally differ in colour from those of the other.

Value of the Cards, &c.—Kings, queens, knaves, and tens, count as ten each; the rest of the cards at their ordinary value. The points which count for the game are made by fifteens, sequences, flushes, &c. The players cut for the deal, the lowest card winning it. If games are played, the cards must be cut after each game, but not so when rubbers are played.

Arrangements for Playing.—The player who loses the deal marks three holes on his own account, as a makeweight for the advantage gained by his opponent in having the deal. Five cards are dealt alternately with their faces downwards, and the rest of the pack are then placed on the table face downwards. The players then gather up their cards; each takes out two, which are placed by themselves with the faces down; these four cards are called "the crib," and under certain conditions become the property of the dealer. The remainder of the pack is then cut by the non-dealer, and the dealer turns up the top card. The value of the cards and arrangements form the preliminaries of the game.

Playing the Game.—In beginning the game the non-dealer leads, and the dealer plays to him, announcing the nature of his card. For example: suppose that ten is announced, and that the opponent replies with eight, he calls eighteen as the amount of the ten and eight. And thus each alternately plays, and he who makes up the number of thirty-one, or the number nearest to it, scores two, and the remaining cards are thrown up. Another deal then takes place, and the process of scoring is carried on as before, till one of the parties has completed the required number of sixty-one, by which he gains the game.

Points in Play.—There are only seven ways by which points in play can be made; viz., by fifteens, by sequences, by pairs, by pairs-royal, by the turning up of the knave, and by making thirty-one, or the number nearest thirty-one.

Points in Reckoning the hand and crib can be made likewise only in seven ways; viz., by fifteens, by sequences, by flushes, by pairs, by pairs-royal, by double pairs-royal, and by the knave being of the same suit as the card turned up.

Explanation of Foregoing Terms.—Fifteens: as often as a player makes fifteen he scores two.

Sequences: these are three or more cards following in successive numbers: and he who holds them scores a point for every card in the combination.

Pair or Pairs.—Every pair made in the play or hand reckons for two points. Pair-royal.—This is three cards of a similar sort held either in hand or crib, and it scores six. Double Pair-royal.—Four cards of a similar sort make this combination, and it scores twelve. The Knave.—If a player hold a knave of the same suit as the card turned up, he is, on reckoning his hand, entitled to one point. Thirty-one.—Every time a player makes this amount he scores two. This, however, applies only to the game when in progress, not to the summing up afterwards. End Hole.—If neither of the players make up thirty-one, he who plays the card which makes up the number nearest it scores one. A Flush.—This means that all the cards in hand or crib are of the same suit, in which case the player is allowed to mark one point for every card of which the flush is composed. A flush cannot happen in play; it occurs only in computing the hand or crib.

Laws of the Game.—The principal laws of cribbage, briefly stated, are these:—There must be a fresh cut for single games, but not in rubbers, and the lowest card wins the cut. In cutting for deal, not less than four cards, and not more than half the pack, should be removed; the cards are to be dealt one by one. If the dealer in dealing shows one of his adversary's cards, the latter scores two points, &c. If there be a misdeal, and the dealer be not aware of it till one of the hands has been taken up, the adversary may score two, and the cards must be dealt over again; the dealer has the right to shuffle the cards last, previous to the cards being dealt. If the dealer give his adversary more than five cards, the non-dealer may mark two points, and there must be a fresh deal. If either party find that the other has more than five cards in his hand, he can claim two points and a new deal. If the pack being dealt from be touched before being cut for the start, the party touching it shall forfeit two points; three cards at least must be removed in cutting for the start, and not less than four be left behind. If a dealer neglect scoring two points for a knave turned up till he has played his first card, he cannot take the two points: the non-dealer must first turn out for the crib; he alone is entitled to touch the crib, and any player confusing his cards with the crib forfeits two points. Taking more points than one is entitled to, touching the pegs and replacing them, &c.; scoring a game as won which is not won; detecting an adversary with a greater or less number of cards than he ought to have; are all matters provided for by the rules, which prescribe the manner in which some acts shall be performed, and attach a penalty to the performance of some acts and to the neglect of others. All these regulations and others will be found stated in minute detail in those works that profess to treat specially of the game.

In addition to the ordinary game there are a few other games, differing from it in certain details, to which it is requisite briefly to refer; these are six-card cribbage, three-handed cribbage, and four-handed cribbage.

The Six-card Game.—This game is said to be greatly inferior to the ordinary game, which, as already stated, is played with five cards. In

this game the dealer gives to himself and his opponent six cards each. Each player lays out two of these cards for crib, retaining four in hand. The deal, the start card, fifteens, sequences, and the game point of sixty-one, are the same as in the five-card game. The rules are also for the most part similar. One of the principal differences between the games is that it is the object in the five-card game to get thirty-one, and then abandon the remaining cards, whereas in the six-card game all must be played out.

The Three-handed Game. — The name of this species of cribbage indicates that it is played by three persons instead of two, as in the ordinary game. The board is made in a triangular shape, with three sets of holes in it, of sixty each set, and having a game-hole in addition. The rules already mentioned are applicable to this game; the playing is very similar to that in the game already described, and each player acts for himself. Five cards are dealt separately, and after the fifteenth, the next, or sixteenth card, is dealt for the crib, to which each player adds one card, so that the crib consists of four cards, and each person has four cards in hand.

The Four-handed Game. — This game is played by four persons, in partnerships of two, as in whist, and rubbers, or single games, may be played. Sixty-one is game; but the players frequently agree to go twice round the board, which, with the game-hole, makes the number a hundred and twenty-one. Two of the four players manage the scoring, and the other two are not permitted to touch the board or pegs, and the laws already stated are applicable to this as well as to the other games. Five cards are dealt to each player, each of whom lays out one card for the crib, which belongs to the dealer. This being done, the pack is cut for the start. The player on the left hand of the dealer leads off, and the player on his left follows, and so on, till all the sixteen cards are played out; the fifteens, the sequence, and pairs, &c., are reckoned in the usual manner. When either player is unable to come in under thirty-one, he declares it to be "a go," and the right of play devolves upon the player on his left hand. The game is lively and amusing, and moderate attention is all that is required in order to play it well, notwithstanding the various details; for which, however, our readers must consult the more elaborate and complete treatises on the game.

The Scotch Haggis. —Our English readers are not unaware that their ingenious neighbours beyond the borders occasionally distinguish themselves, if not for cookery, yet for many qualities compared with which the culinary art, important although it be, occupies but a secondary place. Some of our readers, doubtless, believe that no dinner occurs in bonny Scotland at which the national dish, the haggis, does not figure; and, moreover, that the well-known ability, sagacity, and caution which distinguish our Scottish fellow-subjects, must be traceable to their living on this remarkable dish, with neither stint nor interruption from youth to age. Nevertheless, we who have often visited "Caledonia, stern and wild," or rather, the native land of the haggis, can vouch that the dish has unhappily become very rare, and that the "great chieftain of the pudding race" hardly ever exhibits his "sonsy face" at the social gatherings in the "Land o' Cakes;" and that, alas! the roast beef of old England is superseding the venerable haggis of Scotland, as the language of the Sassenach does that of the Gael. We feel called upon, therefore, to make a record of this celebrated preparation, lest, like the dodo, it become extinct, and with the loss of the haggis, our fellow-countrymen lose the ability which that talent-inspiring food has had so much to do in conferring.

To Cook the Haggis.—Our readers will find the following directions serviceable:—Take a sheep's pluck, clean it thoroughly, making incisions into the heart and liver, that the cleansing process may be the better carried

out. Parboil it, letting the windpipe hang out over the edge of the pot, and after the water has boiled a short time, changing it for fresh water. Boil for half an hour: but let the half of the liver be so boiled that it will become dry and capable of being grated; take the heart, the other half of the liver, and part of the lights, trim away the skin and all black-looking parts, and mince them well, along with a pound of good beef suet and four or five onions. Grate the other half of the liver, and have a dozen small onions peeled and scalded ready to mix with this mince. Have ready likewise some finely ground oatmeal, which has been toasted slowly before the fire for hours till of a light brown colour, and perfectly dry. About two teacupfuls of the meal will be sufficient for the quantity of meat. Spread the mince on a board, strew the oatmeal lightly over it along with a high seasoning of pepper, salt, and a little cayenne well mixed together Have the haggis bag (which is a sheep's stomach) ready and perfectly cleaned, taking care that no part of it is thin enough to endanger its bursting. Put in the meat prepared as described, and along with it half a pint of good beef gravy. Do not fill the bag too full; but allow room for the contents of it to swell; add the juice of a lemon; press out the air and sew up the bag, and put it into the saucepan, pricking it with a needle when it first swells in the pot to prevent bursting, and let it boil slowly for about three hours.

Luncheon Cake for Children.—Procure half a quartern of dough from the baker's, roll it out, and break into it six ounces of butter, add half a pound of moist sugar, two eggs, two ounces of candied peel shred fine; beat all these ingredients up, let it stand half an hour to rise, and bake in a tin or in small loaves at pleasure. The dough may be made at home by thoroughly mixing with each pound of dry flour, a heaped-up teaspoonful of Yeatman's yeast powder and a little salt, pouring on gradually half a pint of cold water or milk, and making the dough into the usual consistence very quickly.

A Nice Plain Cake.—This is made with baking powder, one pound of sultanas, a quarter of a pound of moist sugar, one pound of flour, a quarter of a pound of butter rubbed into the flour, the same weight of candied peel, and two dessert-spoonfuls of baking powder; then add half a pint of new milk, lukewarm, and one egg. This cake must be put into the oven immediately.

Another Receipt.—Take a quartern loaf of dough, and mix with it half a pound of sugar, one pound each of butter, raisins, currants, four eggs, two ounces of orange peel, two nutmegs, half an ounce mixed spices, a few blanched almonds, and a few caraway seeds.

Dough Nuts.—Take two dishes and sift three quarters of a pound of flour into each. Make a hole in the centre of the flour in one of them, and pour in a wineglass of the best yeast. Mix the flour gradually into it, wetting it with a little milk; cover and set it by the fire to rise for two hours. This is setting the sponge. Cut up five ounces of butter in pieces, and rub it well into the flour in the other dish; add half a pound of powdered sugar, a little nutmeg, a tablespoonful of rose water, and a tumbler of milk; beat three eggs, and stir them well into the mixture. Add all these ingredients to the sponge as soon as it is light; cover it all up again, and set it by the fire for another hour to rise, then flour the board, place the dough on it, and cut it in shapes, or roll it into balls the size of small pippins. If it seems too soft, add a little flour. Put the dough nuts into boiling lard, fry them brown and sprinkle sugar over them.

Dinner Rolls.—One pound of flour, a quarter of a pound of butter, one tablespoonful of good yeast, one egg, a little warm milk. Rub the butter into the flour, then add the yeast, breaking in the egg. Mix it with a little warm milk poured into the middle of the flour; stir all well together, and

set it by the fire to rise; then make it into light dough, and again set it by the fire. Make up the rolls, lay them on a tin, and set them in front of the fire for ten minutes before you put them into the oven; brush them over with egg.

Abernethy Biscuits.—Dissolve a quarter of a pound of butter in half a pint of warm milk, and with four pounds of fine flour, a few caraways, and half a pound of sugar, make a stiff but smooth paste; to render the biscuits short and light, add half a drachm of carbonate of ammonia in powder. Roll out very thin; stamp the biscuits, pricking them with a fork, and bake in tins, in a quick oven.

Best Gingerbread. — Mix two pounds and a half of flour with half a pound of butter, the rind of a lemon grated, four ounces of moist sugar, and half an ounce of pounded ginger; make this into a paste with one pound and a half of warm treacle; lay it in cakes on a tin plate, and bake.

Finger Gingerbread.—Mix two pounds of flour with half a pound of treacle, three quarters of an ounce of caraways, one ounce of ginger finely sifted, and eight ounces of butter. Roll this paste into the form of fingers, and, after a great deal of working and allowing it to rise, bake on a tin in a rather quick oven.

To keep French Beans Fresh for Winter (an Original Receipt).—Procure a wide-mouthed stone jar, lay on the bottom of it some freshly pulled French beans, and over them put a layer of salt; fill the jar up in this manner with alternate layers of beans and salt. The beans need not all be put in at the same time, but they are better if the salt be put on while they are quite fresh. They will keep good all through the winter. When going to use them, steep for some hours in fresh cold water.

How to manage and breed Gold-fish.—On the principle that one fact is worth a shipload of arguments, we feel that the best information we can give on this subject is to detail the experience of a well-known naturalist, Mr. Carey, the honorary curator of the museum at Ryde, Isle of Wight. He says:—"In the spring of 1866 I put into one of my tanks, two feet long, one foot wide, and six inches deep, with a rustic basket in the centre filled with gravel, and planted with watercresses and other water plants, three gold-fish, two females and one male. Going into the room one day I observed the water, which had always been clear, very muddy. Seeing the water in such a disturbed state, I at once knew that spawning was going on. I looked with a microscope and saw a number of little golden balls sticking on the roots of the cresses. The thought struck me that, if I removed the ova, I could breed them, as the fish are known to devour their young. I put a handful of gravel and some weeds into a glass sugar-basin. I then, with a pair of tweezers, picked off the roots, with the ova sticking on them, and put them into the basin. In eight days I had a shoal of little fishes. To watch the development of the ova, I put three or four into a zoophyte trough, which I placed under the microscope and watched daily. On the third day a dark spot made its appearance; on the fifth, I could trace the form of a fish, curled up, with its tail to its head, exactly as are seen the whitings trussed for cooking. This increased in size until the eighth day, when the egg split open, and the little fish wriggled out tail first. A short time after I removed the fish from the basin into a garden seed-pan, about one foot diameter and six inches deep. In 1867 I repeated this process, and then I distinctly saw the year-old fish swallowing their brothers and sisters of a few days old; I therefore removed the former to a separate pan. The first, eighteen months old, are now about an inch and a quarter long; the second, six months old, about half an inch. A large number of these fish die at about six months old.

"In 1868 I again removed the ova, and when the little creatures appeared,

I placed them beside their brothers and sisters of the year before; but I speedily proved that these creatures destroy their young."

To Make Good Coffee.—Every one who has been in France returns full of praise of the superior excellence of the French coffee. This depends entirely on the greater care with which the extract is prepared. In some French houses the morning *café au lait* is made in this manner:—About a tablespoonful of a strong black liquid is poured into each breakfast-cup, the cup is then filled up with hot boiled milk. Each person sweetens for himself. This very rich essence of coffee is made by putting a large quantity of coffee into a common French *cafétière* (which is previously thoroughly heated with boiling water), and slowly pouring over it a small quantity of boiling water; the *cafétière* is kept close to the fire, where its contents can be as hot as possible without boiling. When the water has drained through, the essence of coffee thus procured is poured off into a jug and put away for use. It is always used cold. This plan makes excellent *café au lait*, without any of the oily, unnatural flavour that pervades all the "essence of coffee" usually sold in England. But nothing can be better than coffee made in the ordinary manner with the common French *cafétière*. It is only necessary to have good coffee freshly ground (we prefer a mixture of two-thirds plantation to one-third Mocha), mixed with about an eighth of its weight of chicory. When made strong with perfectly boiling water, it will give as good a beverage as can be procured. The *cafétière* must be heated before it is used, and kept hot during the process of percolation. Of course it is indispensable to the proper making of coffee in this way to have plenty of boiling milk and loaf sugar.

The Kaffee Kanne.—This is the name given to a new and excellent kind of coffee-pot, combining the best qualities of the percolator with the ordinary coffee-pot. It can either be placed on the fire, or heated by means of a spirit-lamp. It consists of two pots in one, on a moveable tin stand, underneath which the spirit lamp is placed. The outer casing or "jacket" of tin has a lip, into which sufficient hot water is poured to fill the cavity between the outer and inner pot. The water in this outside jacket is kept *boiling* by means of the fire or lamp; and the coffee is put on a tightly fitting flannel strainer in the inner pot; boiling water is gently poured over it, and in less than five minutes clear, bright, strong coffee may be drawn off through the tap in the bottom of the kaffee kanne.

The coffee made in this way is much more aromatic, as well as economical, than when boiled. We speak from some experience, having used the kaffee kanne daily for some time, and found it in every way satisfactory. It is patented by Mr. Ash, and is manufactured by the Piston Freezing Machine and Ice Company.

Pins.—The useful implements so called, and which are employed for holding together parts of the dress, were originally made of bone, ivory, silver, and wood, and were frequently of a large size. It appears to have been about the middle of the fifteenth century when pins such as are now used came to be known in this country. The number of pins consumed in the whole kingdom is estimated at sixteen millions per day. There are several varieties of pins. One of the best are those in which the wire is very stiff, and the head and body of the pin are of one piece; and these are likewise greatly superior to the common sort. The processes necessary for the manufacture of pins are extremely ingenious and interesting.

All the various modes of operation requisite to the art of pin-making employed for one pin, would occupy more than 7½ hours; yet the division of labour by means of which such immense numbers are manufactured at one time, places them within the reach of every one, and at a very moderate price.

Garden Edgings.—Much of the order and beauty of a garden depends upon the edgings that are adopted, for if these are uneven and irregular, the garden, whether for useful or ornamental purposes, will appear ill-kept, however beautiful the flowers or valuable the plants may be which it contains.

Box Edgings.—Edgings are used for the separation of the walks from the flower borders, and the indication of the figures of the beds or subdivisions of the garden. Probably the best edging formed of a plant is that of dwarf box, neatly clipped and frequently transplanted; it possesses several advantages, it harmonizes with the plants it surrounds, it may be clipped with impunity, and it can be arranged in any lines that are required.

The only objection to box edgings is that, being a close-growing plant, it forms a secure asylum for slugs and various other insects, all of which are destructive in a garden.

Thin pavement, such as the Welsh slate or Caithness pavement, set on edge, is well adapted for the purpose. Hard burnt fireclay, bricks, and tiles are also employed as edgings, and are well suited to the purpose from the circumstance that they are capable of being formed into curved lines. Cast iron edgings are found remarkably useful, from their durability when kept painted, and the facility with which they can be formed into any lines or curves required. Various cements and asphalts have been used as edgings; but, as a general rule, they have the disadvantage of being affected by the weather.

Tiles.—The best and most useful edgings in a small garden are certainly tiles, which are not expensive to provide in the first place; they take up very little room, and last good for many years. They always look neat; and, if it be desirable to hide them, there are many plants used for borders, such as several species of Sedum, the *Cineraria maritima*, and the sweet *Alyssum variegata*. Any of these, if planted close inside the tiles, will quickly grow, so as quite to overshadow them, and will appear as if they only formed the edging.

Rustic Stands for Flowers.—These may be made of various forms, and are both useful and ornamental when placed on lawns or flower-gardens to which hares or rabbits have access; they afford the means of cultivating flowers by placing them beyond the reach of these depredators, thus proving of no inconsiderable utility in addition to their merely ornamental character. The figures and characters in which these stands may be made are infinite in number and variety, and without the aid of the engraver we should find it both difficult and laborious to furnish descriptions of them sufficiently clear. Basket-work and wirework are well adapted for this purpose, and our readers will find a visit of a few minutes to the manufacturer of wicker-work or iron wire ornaments will furnish them with much more definite ideas of the forms and character of the rustic stands in question, than a mere description, however elaborate. Much elegant taste is likewise displayed in the stands; they can frequently be purchased at the flower and seed shops in London and elsewhere.

Propagation of Shrubs by Suckers.—The various methods of propagation are among the most difficult and curious in the art of gardening. One of these modes is that of propagating by suckers, which, however, is simpler and less difficult than some of the other means of accomplishing the object in view. Suckers are merely the underground shoots or runners of the plant. Some of these run to a considerable distance, such as the narrow-leaved elm, the robinia, the physalis, &c. Others are much more limited in the length to which they travel, as, for instance, the lilac, the artichoke, and the saponaria. In the process of propagating by suckers, all that is requisite is to dig up the plant and cut off the small plants or suckers,

taking care that a portion of root is attached to each; after which the top ought to be reduced by cutting off from the fourth to the half of the shoot, in order to adapt it to the reduced condition of the root; it must then be placed either in that part of the garden set aside as the nursery, or, if it be a hardy plant, it may be planted in the place where it is intended finally to remain.

Hints on Netting.—Netting, or knotting, as it was sometimes called, was a favourite employment for ladies about the end of the last century. It seems then to have fallen into disfavour for some time, and latterly it has been revived, and appears to be more fashionable than ever, being the foundation on which the beautiful work called "Guipure d'Art" is made.

The Stitches used in Netting are simple and easily learned, and it possesses this advantage over either knitting or crochet, that each stitch is complete in itself, and is so firmly fastened that it cannot be undone without considerable difficulty; there is, therefore, none of that misery to unskilful knitters known as "dropped stitches." The work is pretty and ladylike in its execution.

The Implements are two only, a needle and a mesh; the needles for fine netting are of steel, with a split in each end, through which the thread is wound. The size depends on the kind of work to be done; for wool the needle is of bone, or wood if very coarse wool is to be used. The mesh, if large, is of wood or bone, flat like a paper folder; if for very fine netting, it is round like a knitting needle, but rather shorter, and made of steel.

Diamond Netting is the name given to the commouest stitch in netting. To commence this, fill the netting needle with rather coarse knitting cotton. Take a piece of strong cord, form a quarter of a yard of it into a round: fasten this round either to a screw pincushion, or to a bridle of tape long enough to pass under the foot of the worker, and to bring the round to a convenient height; tie the end of the thread in the needle to this; then take a mesh half an inch wide in the left hand, hold it close to the cord, put the thread over it, and hold it firmly with the thumb of that hand. Take the needle in the right hand, let the thread fall over the mesh and the third finger, bring it round under the mesh, and hold it between the thumb and first finger; then slip the needle through the loop, under the mesh and the foundation cord. By doing this a loop will be formed, which must fall over and be retained by the fourth finger; then withdraw the third finger, and draw the loop off the fourth finger gradually until it is close up to the mesh; hold the left thumb close over the mesh while this stitch is being made. When a proper number of stitches are put on the foundation cord, net backwards and forwards in the same way till a sufficient-sized piece is formed. A little practice soon renders any person expert in netting.

Square Netting is formed by beginning at the corner on one stitch, and netting two stitches in one in the last stitch of every row until the size required is attained; then decrease by netting two together at the end of every row until there is only one stitch left. This is the stitch used in Guipure d'Art.

Honeycomb Netting.—This stitch is pretty for curtains. It consists merely of netting one plain row, then net in the ordinary way the *second* stitch before the first all through the next row, net the third row plain, and begin the fourth with one plain stitch; then net alternately the second and first through the whole row.

Herring-bone Netting is done by taking the second stitch first always, without a plain row between.

These two stitches along with Grecian netting, which is much more complicated, are used for netting curtains, antimacassars, &c. By far the prettiest, however, of these patterns, are the square and diamond netting when they are ornamented by patterns darned on them in soft embroidery cotton.

For this purpose the piece of netting is required to be stretched to a square shape, and then darned. A printed pattern for crochet, or even an easy Berlin wool pattern, may be followed with excellent effect. The Guipure d'Art is more troublesome; the stitches being those used in Guipure lace, which would require more space to explain than could well be devoted to it in a work like the present.

Hints on Home Decoration. — Diaphanie. — This is a process by means of which coloured designs may be transferred from the paper on which they are originally printed, for the decoration in colours of glass which is intended to admit light. It is, in fact, a method of glass-staining which costs only a fraction of the expense of the ancient process, produces quite as bold and brilliant effects, is sufficiently durable for all ordinary purposes, and can be practised by amateurs of either sex at their own homes. That diaphanie fully answers the purpose for which it is mainly intended—the staining of glass—is abundantly proved by the fact that many church windows are coloured by means of it, and that they are esteemed quite as telling and beautiful specimens of decoration as those that owe their origin to the old and expensive art. For ordinary purposes the process may be described in a few words. In the first place, designs must be obtained, and these can be got in every variety, and suitable for any size of window or pane. First wet the *back*, or the *uncoloured side*, with a sponge and cold water, and apply a coating of prepared transferring varnish to the coloured surface with a wide camel-hair brush. Then at once apply the cemented side to the glass in the proper position, and press down with a roller. To insure success, two or three sheets of paper should be laid upon the back of the design before the using of the roller is commenced; then begin rolling from the centre outward to the circumference. The work is now to be left until the varnish has become perfectly dry, which it will do in two days. The design has by this time become printed upon the glass, and the next step is to remove the paper from which the design has been transferred. This is done by wetting and gently rubbing with a cloth or sponge. When the paper has been wholly removed, a thin coating of "clearing liquid" is applied to the design, and when this has become perfectly dry, one or two coatings of the "washable varnish" are laid on, and the work is finished.

No special knowledge of art is required for the practice of diaphanie. The work is especially suitable for hall and lobby doors and windows, for school and church windows, staircase, study, and other windows in houses where it may be desirable to shut out the prospect of a smoke-dried back yard, or a range of mews. The special advantage of diaphanie is that while imparting a graceful and artistic character wherever used, it does not exclude the light, and it renders blinds unnecessary.

It should be specially kept in view that the designs must be transferred *before* the glass is fitted to the window, and that the coloured side is kept inwards. The glass may be cleaned in the usual manner, if ordinary care be taken, as the coatings of "washable varnish" are quite a sufficient protection to the picture.

Modelling in Clay. — As an interesting, intellectual occupation for leisure hours, modelling in clay has recently been looked upon, especially by ladies, with growing favour; partly from the circumstance that the Princess Louise has for years practised it with the ardour of an amateur, and at the same time with the success of a professional. That modelling is a perfectly suitable and becoming, as it certainly is a fascinating employment for ladies, is established beyond question by the mere fact that our gifted princess practises it. The occupation is really a cleanly one, though at first it might not be thought so. The clay employed is fine white clay—the clay of which pipes are made, —and is readily removed by washing. And though no sensible amateur would

willingly set up his modelling apparatus in a drawing-room if he could obtain the use of a room less expensively furnished, yet even here the work may be carried on by an ordinarily careful person without endangering carpet or furniture.

Of the noble art of sculpture, modelling is by far the most important part—is the only part, in fact, which exclusively employs the genius of the sculptor himself; for the subsequent processes of casting and carving in marble are carried out in great part, if not entirely, by workmen and assistants. The tools employed are chiefly those with which nature has furnished us—the fingers and thumbs; and, as clay can be purchased for a mere trifle, the *matériel* required in modelling will cost the amateur no more than a very few shillings.

Under the article designated Wood-carving (page 281), it is stated that that art will be prosecuted all the more successfully if the student have acquired some little skill in modelling; for this accomplishment will enable him to produce a model of the object he designs to carve; and this pattern will be a guide whereby he may work with certainty, and thus he will have provided against failure—the waste of material and the loss of time. But modelling should be pursued for its own sake—it is its own reward. And the reward is not long deferred if the student work with care; for it is a well-known fact that satisfactory results are produced by a less amount of labour in modelling than in drawing or painting.

In carving we *cut down* our material to the desired form; in modelling we *build up* our clay to the required form. The process consists of laying on the clay and smoothing down until gradually the model assumes the full proportions of the object we desire to reproduce. Suppose, then, we have to copy a vase in low relief, from a plaster cast. We place the cast before us; and, having provided a slate slab, we draw upon the slab the outline of the cast with a slate pencil. Preserving this drawing as the outline, we commence to lay on the clay, modelling it as we proceed with the fingers. This process is continued until the model projects from the slab precisely as the vase does in the casts; and is, in fact, a fac-simile of it. If the vase have no ornamentation upon it—and the simplest possible copy should be selected for a first attempt in modelling—this work may all be done with the fingers. When there is ornamentation, the clay must be laid on cautiously and worked into form by means of the tools, which are usually made of boxwood, with points resembling the extremities of the fingers in shape. When the student has had some little practice in manipulating the clay and reproducing simple forms, he should attempt to copy a simple mask—like that of Dante—in which the surfaces are broad, the features large and sharply defined, so that the whole of the work may be done with the thumbs and fingers. These masks or faces may be obtained at a trifling cost from any figure-moulder.

To Copy Masks, we require a board over two feet in length and more than a foot broad. We fix the plaster cast towards one end of the board; and having wetted the other extremity to make our clay adhere, we proceed to build up the clay until the mass has assumed the proportions of the cast. The process will consist of laying on the clay and smoothing it down with the thumbs. We must have recourse to tools in finishing the lines of the eye, the nostril, and the mouth. A finished surface can be given by means of pressing the clay all over firmly with the thumb. While copying a mask or bust, the amateur will take care to keep the work damp by covering it with a wet cloth. After some practice in copying masks the student may attempt fruit and foliage, decorative work, and studies in still life. He may afterwards attempt a medallion portrait or a bust; but, by the time he has so far advanced as to be able to grapple successfully with these tasks, he will have acquired

more knowledge of his subject than we in the limits of this article can give.

Wood-Carving. — One of the most interesting varieties of home decorative art is carving in wood. Hundreds of articles that are in use in every drawing-room, boudoir, library, and dressing-room, may be made ornamental, and even artistic as well as useful, by being carved; while the amount of technical skill required to produce very pleasing effects may easily be obtained by amateurs of either sex without the aid of a master. We do not say that wood-carving can be practised, like décalcomanie and diaphanie, with the same success by all; but a moderate degree of proficiency may readily be attained by every attentive amateur, while the higher regions of the art lie open to all those who are at once neat-handed, tasteful, and able to draw or model. That wood-carving for the purposes of the decoration of home may be mastered without extraordinary effort seems to be proved by the fact that this domestic art—if we may so name it—has established itself as a fashionable amusement, and a useful evening employment, for both ladies and gentlemen.

The Gouge, Chisel, and Mallet, are the chief implements used in wood-carving; but a properly furnished tool-box ought to include a rasp, file, and grounding-punch, as well as the necessary stock of gouges and chisels, amounting in number to from one to two dozen. The use of the various tools must be learned by practice; but of course, even at the beginning, the amateur will understand that the large gouge with the rounded corners is to be used for "blocking out;" the V chisel, so named from the shape of its sharp-pointed blade, is used for cutting deep, narrow lines; the file for finishing, and the grounding punch for stamping the roughened background when the carving is finished.

The Practice of Wood-Carving.—The drawing and cutting out go together through every stage of the process; indeed, the carver may be said to draw with his chisel just as a painter is said to draw with his brush, or the engraver with his *burin*. Every cut of the chisel, then, should be made with the aim of striking the outline of the object on which the carver is engaged.

Carving in Low Relief.—Carving in low relief is a design in which the objects project only slightly from the background. The design is either drawn upon the block, as in the case of wood engraving, or the drawing, on paper, is pasted upon it. The carver has then before him the objects and the ground, and he sets to work "sinking" the ground to the requisite depth with a medium-sized gouge, and afterwards levelling it with a chisel. The objects are left standing out in relief, and the upper surface of these has then to be formed. Suppose the design of which we have been speaking is intended for a picture-frame, and consists of leaves and flowers growing from a twisted stem. We draw or paste this design upon the wood of the frame, and we then "sink" the ground. The flowers, leaves, and stem will then be left in outline, but with flat surfaces. Our next business is to round the stem, to hollow out the undulations of the leaves with a large gouge, so as to give them the exact form they appear to have on a shaded design, and to carve the petals of the flowers. To give distinctness and strength we then cut out the wood round the edges of the pattern with the sharp V chisel. Sand paper may now be applied to the pattern *à discrétion*, and the ground made uniform in tone and texture by stamping with the grounding punch.

Bold Carving, or carving in high relief—that is, when the object projects boldly from the block,—is more difficult. Suppose, merely for example, that we had to carve in wood a copy of one of Landseer's lions *couchant* on its pedestal in Trafalgar Square. This is a simple subject, but on that account it will serve all the better as an illustration of the different processes of "bold" carving. Our first necessity will be to procure a prepared block of

walnut or other suitable wood, of (say) eight inches in length, six inches in breadth, and four and a half inches in depth. We shall require two designs; one of which gives a "plan" of the subject, or the appearance it would present when looked at *from above;* the other presents a side view. On the top of the block we draw or paste on the "plan," and on the sides of the block we draw horizontal lines to mark the line of the top of the pedestal, and the line of its base. We then, beginning at the top, block out the design, using the mallet in the right hand, and applying the suitable gouge with our left. The "plan" on the top will keep us from *cutting in* on the figure, and the lines round the sides will keep us from cutting down into the pedestal and ground. On the side of the block we then draw the outline of the figure, the pedestal, &c., and proceed to clear away the useless wood. The work is now blocked out, and, laying down our mallet and taking the handle of the gouge or chisel in our right, and guiding and steadying its blade with the fingers of our left, we proceed to the details, cutting out the various features, and completing the work. Work of this kind is perhaps best done from a model. (See MODELLING, page 279.)

Care should be taken never to cut exactly with the grain, else the carver will be liable to split the wood. The necessary tools for wood-carving may be obtained from the regular tool-makers, and at fancy shops. At the latter also designs may be obtained.

The Domestic Dog.—"More docile than man," says the eloquent Buffon, "more obedient than any other animal, he is not only instructed in a short time, but he also conforms to the dispositions and manners of those who command him. He takes his tone from the house he inhabits; like other domestics, he is disdainful among the great, and churlish among clowns. He knows a beggar by his clothing, by his voice, or his gestures, and forbids his approach. At night, when the protection of the house is committed to him, he seems proud of his charge; he continues a watchful sentinel; he goes his rounds, scents strangers at a distance, and gives them warning of his being on duty. If they attempt to break in upon his territories, he becomes more fierce, flies at them, threatens, fights, or either conquers alone, or alarms those who have an interest in coming to his assistance; and when he has conquered he quietly reposes upon his spoil, and abstains from abusing his victory, giving thus a lesson at once of courage, moderation, and fidelity."

These are eloquent words, but not more eloquent than the subject most justly merits. We shall now present our readers with a few notices of those dogs which principally come under the description of domestic dogs, omitting those which are sporting dogs, strictly so called.

THE NEWFOUNDLAND DOG.—This dog is remarkable for the symmetry of his form, as well as for his acuteness. There are two distinct breeds of this species—one large and the other small. The larger variety measures from the tip of the nose to the point of the tail about six feet and a half. His feet are webbed, and as a water-dog he has no equal, being capable of swimming and floating for hours without suffering from the long immersion. He possesses extraordinary sagacity, which has been repeatedly displayed in saving persons in danger of drowning. Of his extraordinary skill in this respect very many striking evidences are on record, all attesting the great value of the animal. He makes an excellent watch-dog.

THE OLD ENGLISH MASTIFF.—This dog is a native of England, but is by no means so generally met with as the dog above referred to. He is remarkable for his great courage and power. His height is generally about twenty-nine to thirty-one inches, and when well broke and of fine temper—an indispensable quality in an animal of such great physical strength—he is an invaluable dog for a keeper, and more to be trusted than the Newfoundland.

His sense of smell is very acute, and he is capable of discharging the duties of a watch-dog with admirable fidelity and vigilance.

The Watch-Dog.—A great many varieties of the dog possess the instinct by which they are led to watch and protect the property of their masters, but in those properly called watch-dogs this faculty is most highly developed. The dog now referred to has not the long flowing hair of the collie or shepherd's dog, but is nearly smooth. He is a trusty and faithful servant, and has great sagacity, and watches with great assiduity his master's cattle, and is invaluable as a guard to the household during the night.

The English Terrier is one of the oldest breeds of dogs in this country. He is elegant and graceful in figure, and possesses a merry and active temperament, and his companionable qualities make him a favourite both in the house and out of doors. Kept in the house at night, his acuteness and vigilance are such that he never fails to discover the approach of an intruder upon the premises, and gives timely and certain notice.

The Skye Terrier is so well known as to require little description, but the varieties of this dog are innumerable. These dogs are all remarkable for rough and shaggy coats; according, however, to some of the best authorities in Skye, the purest breeds have wiry hair and a very short tail, which latter appendage is understood to be elongated by crossing with less pure members of the tribe. Some of these terriers are remarkable for the great length of the body as compared with its height; sometimes the animal is three and a half times longer than it is high. The profusion of hair with which these dogs are sometimes invested is one of their most remarkable features, the coat being so developed in some instances that the ears, legs, and tail all form one thick mass, and the animal has the appearance of an animated door-mat, nothing being visible but the point of a black nose and a pair of bright dark eyes. All these rough terriers are, like their English cousins, excellent dogs for vermin, although some of them possess greater virtues in that respect than others. They are frequently excellent household dogs, and extremely vigilant, and are generally possessed of a gentle and loving temperament.

The King Charles.—This is a very pretty dog. The best description ought to have a silky coat of straight and abundant hair, and of a rich colour—black and tan,—and entirely free from white; the cheeks and inner margin of the ear and the lips ought to be tan, and over each eye should be a spot of the same colour, these patches being always an important feature in the animal. In the time of Charles II., from whom the dog has his name, the most popular colour was liver and white; but the black and tan has now superseded it, and is considered the speciality of the breed.

The Blenheim Spaniel derives his name from the seat of the Dukes of Marlborough, where he was originally carefully bred. The real origin of this dog seems to be doubtful; but it is stated to have been a favourite so far back as the time of Henry VIII., and that the little "dogge" which Queen Mary of Scotland had with her on the scaffold was of this breed. The colour of the pure-bred Blenheims is red and white, and the red should be of a rich yellow or golden hue, and well defined. When well-bred, it is of a lively temperament; and although more capricious than the King Charles, it is said to be capable of great attachment. It is a favourite drawing-room dog.

The Maltese Dog resembles a Skye terrier of diminutive size, but its coat is silky and pure white. It is a very animated little animal, and well adapted to the drawing-room.

Toy Dogs.—The principal of these are the toy terrier, the Italian greyhound, the lion dog, the small poodle, and the pug, all of which are mere pets, having merely a fictitious value, and only suitable as companions for the fair occupants of the drawing-room.

Management of Dogs.—All dogs are capable of education, although it is certain that great difference in intelligence is known to subsist between individuals even of the same species. There are stupid dogs and clever dogs, as there are clever and stupid members of the human family. Clever or stupid, however, dogs kept in a dwelling-house ought to be taught good manners; to be silent, and to lie down when so ordered; to refrain from leaping on the knees of strangers; and not to sit watching and staring at meals, as if coveting the food partaken of by their master and mistress. To make them behave well, they must be taught when young; and one of the best modes of doing this is to let them be certain of being punished if disobedient, and rewarded when dutiful. A clever dog will soon be able to comprehend and act upon a look, a sign, or a word.

The Feeding of Dogs.—The dog is naturally carnivorous, but when domesticated he does not refuse farinaceous food, especially if early accustomed to it. Those who keep dogs ought not to leave their feeding to the scraps they may chance to obtain at the breakfast or dinner table; moreover, irregular supplies are injurious to the animal's health. The dog ought to have his regular meals, and his food should be chiefly flesh of some kind, boiled and cold; when given raw, it is apt to produce some ferocity of temper, and to cause him to have an offensive smell. If possible, the dog should be induced to eat a little farinaceous food along with his meat. Liver is not proper food for a dog, unless occasionally, as it acts as an aperient; but any ordinary pieces of meat or tripe will suit very well. Few things are more wholesome for a dog kept in the house than the meat biscuits lately introduced. The dog ought to be fed only once a day if he gets as much as he requires, and this allowance should be given in the morning or forenoon; but as he requires to drink frequently throughout the day, care must be taken to give him plenty of pure water.

Health of the Dog.—To maintain a dog in vigorous health he must have abundant exercise in the open air, and be kept clean. Washing him keeps him in health, frees him from irritation of the skin, and destroys fleas. Every house-dog or lap-dog ought to be washed once a week with soap and water, and delicate dogs ought afterwards to be combed and brushed, and dried with a hard cloth. Washing is absolutely indispensable — independently of the consideration of health— where the dog has a thick coat of hair, as the Scotch terriers have; he is apt to contract an offensive smell, the causes of which, for the animal's own sake, as well as his owner's, ought to be at once removed.

Diseases of Dogs.—The dog is subject to many diseases. Fever of a simple character, influenza, the distemper— which is typhus fever, — rheumatic fever, bronchitis, asthma, dropsy, are only a few of the ailments to which he is liable. In all such cases the advice and aid of a person of skill in the treatment of canine maladies should be at once obtained. These maladies and their treatment constitute a subject of great intricacy, as there is a very great difference between man and the dog in the mode in which medicines act. Aloes and rhubarb, which we know to be purgatives, are not so to the dog. Common salt in apparently small doses acts so powerfully as an emetic as to be dangerous, and in large doses it is a poison; minute doses of mercury are quickly followed by salivation, which in the human patient it often takes considerable time to produce; the *secale cornutum*, so powerful in its specific action in the human subject, produces in the dog no effect but that of vomiting. These show how necessary it is that skill and knowledge should be possessed by those who attempt the treatment of canine disorders. Humanity and benevolence alone suggest that these faithful creatures, so dependent upon us, and who doubtless owe many of their maladies to domestication, ought never to be

subjected to the harsh and cruel treatment of the ignorant.

Management of Pet Dogs.—We abridge the following from "Stonehenge," one of the highest authorities on dogs:—"We will suppose that a puppy six weeks old, and of a breed not exceeding 15 lb. weight, is presented to one of our readers; what is to be done? First, let it be provided with a warm basket lined with some woollen material, which must be kept scrupulously clean. It must not be permitted to lie upon a stone floor, which is a fertile source of disease; bare wood is better than carpet, and oilcloth superior to either. In the winter season the apartment should have a fire, but it is not desirable that the puppy should lie basking close to it. Even in cold a gleam of sunshine does young creatures good, and the puppy should be allowed to obtain it through a window in the winter, or without that protection in the summer. It will take exercise enough in playing with a ball of worsted until it is ten weeks old; after that time a daily run in the garden or paddock will be of service, extending to an hour or an hour and a half. After this age, two or three hours a day, in periods of an hour each, will be of service.

Food for a Puppy.—Until after the tenth week, cow's milk is almost essential to the health of the puppy. It should be boiled and thickened at first with fine wheat flour, and after the eighth week with a mixture of coarse wheat flour and oatmeal. The flour should be gradually increased in quantity, at first the thickness of cream, adding meal in quantity sufficient to make a spoon stand up in it. If the bowels are relaxed, the oatmeal should be diminished, or if confined, increased. This food, varied with broth made from the scraps of the table, and thickened in the same way, will suffice up to the tenth or twelfth week, after which a little meat, with bread, potatoes, and some green vegetables, may be mixed together and gradually introduced as the regular food. The quantity per day will of course vary according to the size of the puppy; but it may be laid down that, for each pound the puppy weighs, an ounce of solid food will be sufficient. From the time of weaning up to the tenth week it should be fed four times a day; then up to four months, three times; and afterwards twice until full grown, when a single feed will, in our opinion, conduce to its health, though many prefer going on with the morning and evening supply.

When the puppy is full grown, meat, bread, and vegetables (either potatoes, carrots, cabbage, cauliflower, or parsnips) in equal proportions will form the proper diet, care being taken to avoid bread made with much alum in it. Dog biscuits, if sound, answer well for pet dogs; but the quantity required is so small that in most houses the scraps of the bread-basket are quite sufficient. Bones should be supplied daily, for without them not only are the teeth liable to become covered with tartar, but the digestion is impaired for want of a sufficient secretion of saliva. If the above quality and quantity of food and exercise are given, in combination with the protection from cold recommended, the pet puppy will seldom require any medical treatment.

Distemper in Puppies. — Sometimes, in spite of the most careful management, it will be attacked by distemper; but with this exception the properly treated pet dog will pass through life without submitting to the attacks of this disease, which is dire in its effects upon the canine race. If care is taken to keep the bowels open, no medicine will ever be required; but sometimes this is neglected, and then recourse must be had either to castor oil or the compound rhubarb pill—the dose being one drop of the former or half a grain of the latter to each pound the puppy weighs. If the oil is stirred up with some milk the puppy will take it readily enough, but care should be taken that the quality is good. The compound rhubarb pill may be given by opening the mouth with the left hand, dropping in the pill, and pushing it down the throat as far as the finger

will reach. If the liver is not acting, half a grain to a grain of blue pill may be added to either dose, and repeated if necessary every day or every other day till the desired effect is produced.

Respirators.—The apparatus so called is intended for the use of persons subject to delicacy of the bronchial tubes, and the consequent irritation too frequently caused either by the sudden vicissitudes of temperature to which this climate is liable, or by suddenly passing out of a chamber artificially heated into the open air. The mode in which the apparatus works is sufficiently scientific to render it extremely probable that it may be a highly beneficial invention. The principle is easily understood. The person using the respirator places it over his mouth, or over both nose and mouth, and breathes through it in the ordinary manner. In the act of exhaling, the warm air from the lungs parts with its caloric to the metal tissues through which it passes, and the cold air which is immediately afterwards inhaled, has imparted to it a considerable portion of the caloric which the metallic part of the apparatus had just received. By this means any sudden access of very cold air is prevented, and the consequent irritation of which the cough is the symptom and indication. All medical men agree in the importance of checking a cough when it is possible to do so without danger, for it is well known that a cough which originates merely in irritation of the delicate membranes of the bronchiæ, frequently aggravates and increases the irritation, and the cause and effect become reciprocal.

Cold Air, a Tonic.—It is proper to remember that cold air is itself a tonic, and that to breathe continually through a respirator would deprive the person so breathing of the invigorating effects of breathing a cool atmosphere. We apprehend no wise and experienced medical adviser would therefore counsel his patient permanently to use the respirator, but only in such instances as shall prevent the irritating effect of sudden changes, one of the most frequent causes of pulmonary diseases in this country, and which are of comparatively rare occurrence in those climates where sudden changes of atmospheric temperature rarely take place.

The Walnut.—This is one of the most ornamental of park trees, and not only so, but it is variously useful. It is a native of Persia and the south side of the Caucasus, and was introduced to this country from France in the sixteenth century, and at that time called *Gaul nut.* In its unripe state the fruit of the walnut is much used for pickling. When ripe it forms a pleasant constituent of the after dinner dessert. In France and Savoy the oil is expressed from the kernel, and is much used by painters, supplying the place of almond oil. In Spain the cooks strew the gratings of old and hard nuts, these being first peeled, over their tarts and other meats. Walnut leaves, strewed on the ground, annoy worms, those pests of the lawn and croquet-ground, and if macerated in warm water, they yield a liquor which, if poured on the ground, destroys worms.

Walnuts as Medicine.—In medicine the unripe fruit is used for the same purpose. "The more walnuts one eats," says Pliny, "with more ease will he drive worms out of his stomach." Its wood, in consequence of its beautiful granulation, is of much commercial value for cabinet work. The varieties of the walnut most commonly cultivated for the fruit are the "early round oval," "double large French," the "tender shelled," and the "thick shelled." The "highflier of Thetford," however, is said to be the best variety known.

Propagation of the Walnut.—The most common mode is to propagate from the nut or seed. It is also propagated by a species of grafting called "marching," by budding, and by grafting by the "approach" method. In any common fertile soil the walnut will succeed, but it thrives best in a good depth of loam, mixed with sand or gravel. Those who intend planting

walnuts should procure plants from the nursery, either inarched or budded, and in as advanced a stage of growth as is compatible with their safe removal. Plants from eight to twelve years old may be safely removed, if properly prepared by previous transplantation. Plants for fruiting should be planted twenty feet distant from each other. The usual period at which they commence bearing is eighteen or twenty years. The fruit is produced on the extremities of the previous year's shoots; it ripens in September and October, and should be gathered so as not to injure the tree.

Best Inks.—Black Ink.—A method of making this has been recommended which is worthy of notice. Put into a stoneware jar, containing a gallon of water, three-fourths of a pound of bruised nutgalls, and then, twenty-four hours after, add six ounces of copperas, six ounces of gum arabic, and four or five drops of creosote. The vessel is to be closed and left for two or three weeks, but shaken every two days. The contents are then allowed to settle, and the clear liquor will be fit for use, of a deep black.

India Ink for Ordinary Writing.—India ink is composed of carbon, and will keep for any length of time without undergoing change, although dissolved in water. Neither great heat nor extreme cold affects it. All that is requisite is to keep the liquid from evaporating—so far as that is possible,—and to protect it from dust. The solution makes an excellent ink, and is of a fine black. Sixpennyworth of Chinese ink will furnish half a pint of ink, being soluble in that quantity of water. This ink, in colour and durability, is said to exceed all others.

Scarlet Ink. — Digest with one ounce of liquor ammoniæ one ounce of garanciin, add a pint of cold distilled water, and triturate in a mortar; filter, and dissolve in the solution half an ounce of gum arabic; or dissolve in three ounces of liquor ammoniæ twenty grains of pure carmine, adding eighteen grains of powdered gum.

Sympathetic Inks.—Take an ounce and a half of zaffre, which is the residuum left after the sulphur, arsenic, and other volatile substances are expelled from cobalt by calcination,—put it into a glass vessel with a long and narrow neck, and pour over it an ounce measure of strong nitrous acid diluted with five times its bulk of water. Keep it in a warm place for ten or twelve hours, and then decant the clearest portion of the liquid. Having done this, pour about as much more of the diluted acid on what remains, which must be kept for as long as before, and then decanted and mixed with what was obtained by the first operation. All this being done, dissolve in the liquid two ounces of common salt, and the ink is ready for use. Write with a clean quill pen on white paper, and as long as the writing is exposed to the ordinary temperature of the air it is invisible. When the paper is heated at the fire or in a hot sun the characters will appear, but they will become invisible again when the paper cools.

Diluted Sulphuric Acid mixed with a good many times its bulk of water, will likewise form a species of sympathetic ink. Write with a clean quill pen on white paper with this solution, and the letters are entirely invisible, and will remain so for any length of time; but if the paper be held to the fire the words and letters become of a fine black. In this case, however, they do not disappear, but remain as if written with the ordinary black ink.

Balsam for the Hair.—The following recipe is said to be highly worthy of attention:—Sulphate of quinine, half a drachm; acetic acid, one drachm; white wax, one ounce; almond oil, three ounces; otto of rosemary, half a drachm. Put the quinine into a cup and add the acid, stirring them together with a silver spoon; then add the wax and the rosemary; put the cup into boiling water till the wax is melted, and then add the oil. While the mixture cools keep stirring it occasionally.

Toilet Vinegar.—Half a pint of Bordeaux, or of the best white wine vinegar; half a pint of pale rum; essence of bergamot, rosemary, and marjoram, a drachm each; and one pint of rose or elder-flower water. Mix the perfumes with the spirit, then add the vinegar, and lastly, the rose water. If not perfectly bright it may be strained through blotting-paper.

Needles.—It appears that needles such as we at present use, and which were originally called Spanish needles, were introduced into this country in the reign of Queen Elizabeth. Every sewing needle passes through the hands of 120 different operatives before it is complete; and were it not for this division of labour, the price of these useful articles would not only be immensely greater than it is, but they would be beyond the reach of ordinary people, and their manufacture would necessarily be extremely limited.

New Needle Threader.—This is a new and most ingenious instrument, enabling those whose sight is defective easily to thread a needle. It is an excellent contrivance for the purpose, and can easily be obtained at a very moderate cost.

The Chameleon Top.—A very amusing toy so called has lately been produced, and has become very popular, both from its simplicity and the optical effects it produces while spinning. It is an amusing plaything for the nursery, as well as a scientific toy, and can be had at any toy-shop.

To remove Smoke Stains from Marble. — Take a large lump of Spanish whiting, soak it in water, not more than enough to moisten it, and put into the water a piece of washing soda; put some of this whiting on a flannel, and rub the marble repeatedly, leaving the whiting on for some hours. Wash it all off with soap and water, dry well, and polish with a soft duster.

Potatoes.—A la Maitre d'Hotel.—Boil the potatoes and let them become cold. Then cut them into rather thick slices. Put a lump of fresh butter into a stew-pan, and add a teaspoonful of flour. When the flour has boiled a little in the butter, add by degrees a cupful of broth. Boil up, and put in the potatoes, with chopped parsley, pepper, and salt. Let the potatoes stew a few minutes, then take them from the fire, and when quite off the boil add the yolk of an egg beaten up with a little lemon juice and a tablespoonful of cold water.

Fried Potatoes.—The best way is to half boil the potatoes, then cut them up into slices, and fry them in butter. When the potatoes are brown, drain off the fat, strew a little salt over them, and let them be eaten while they are hot and crisp. Potatoes may be fried without being parboiled, and even when boiled and become cold.

Mashed Potatoes. — Potatoes for mashing should be as nicely boiled as if they were intended to be eaten without further preparation; only they should be dressed a little more, though care should be taken not to let the water get into them. The farinaceous part should be pounded up, with a small quantity of the freshest butter, the yolk of an egg well beaten, and a little pepper and salt; add, if possible, a little cream, and put the mashed potatoes into the oven to brown them. Mashed potatoes are also very nice if made up into round balls, covered with yolk of egg, and fried a light brown. They might with great advantage be mixed with some cold fish finely shred, and a little chopped parsley. In many families the cold remains of fish are often thrown away, which would answer this purpose extremely well, and form a very savoury dish. Garnish with fried parsley.

Sweet Potato Balls.—Boil the potatoes, then carefully mash them. Boil a pint of milk with some lemon peel, a little sugar, and salt. When the milk boils add the potatoes, so as to form a tolerably thick mash. When cold make it into balls; cover them with bread crumbs and yolk of egg. Fry of a nice brown colour, and serve with sugar strewed over them.

Christmas.

The Waits.

Dreams, mazy dreams! yet through my wayward dreaming
The old sweet images half veiled appear;
Love, Life, and Death, in some mysterious seeming,
Ghost-like, yet lifelike, now are hovering near.
But in my world of visions floating, dying,
Weird minstrels witch the nights with elfin strain;
And with Æolian breath o'er my heart flying,
Their music heralds "Christmas come again."

Christmas Morn.

Morn, happy morn; the touch of infant kisses,
The grasp of friendly hands the day records;
The glance that speaks a whole round world of blisses—
A tenderer greeting than the tenderest words.
And chastening all our simple home rejoicings
Comes a sweet influence from this hallowed morn,
As when on Judah's dusky plains the Voicings
Of angels sang, "To us a Child is born!"

The Chimes.

Slow grows the day—the Grange its snowy cover
Raises against the ever-brightening sky;
Scarce seen, the rooks around the belfry hover,
While loud and cheerily, and blithe and high,
The conscious bells ring out in joyous chiming
A message of Good-will to all Mankind,
Clanging like some old Titan poet's rhyming,
And flinging resonant music on the wind.

Christmas Night.

Yet sweeter, softer music when the even
Shuts out the dark, and bevies of bright girls
Show us again the hues of summer's heaven—
Rose in their cheeks, and sunlight in their curls.
The Druid mistletoe his rites imposes;
The dance goes weaving through the glittering hall,
The jolly host his frequent toast proposes,
"A Merry Christmas to you one and all." D. Murray Smith.

The Month of December.

"When icicles hang by the wall,
And Dick, the shepherd, blows his nail,
And Tom bears logs into the hall,
And milk comes frozen home in pail;
When blood is nipped, and ways be foul,
Then nightly sings the staring owl,
To-who,
Tu-whit, To-who, a merry note,
While greasy Joan doth keel the pot."
Love's Labour Lost.

"Gloomy winter" reigns supreme over the outer world in the month of December. The days are short, dark, and cold, the earth looks bare and desolate; the woods are silent, and the sky is usually of a dull leaden hue; but towards the end of the month often come heavy falls of snow, and bright frosty days, as if to cheer us up for the joyful Christmas-tide. The holly berries grow scarlet with the clear frost, and the few Christmas flowers are more precious than the bright roses of summer. The Christmas rose, or black hellebore, though an old-fashioned flower, has considerable beauty; and the almost fabulous Glastonbury thorn still hangs out its snowy clusters about this time.

December is the month for indoor pleasures. Families, the members of which are scattered over the busy world, endeavour to meet together and celebrate Christmas in the paternal home. The frozen ponds are the delight of the schoolboy, now home for the holidays,

while the girls find equal enjoyment in preparing for and arranging the Christmas-tree, that pretty German custom having now become almost universal in England. The elder brothers and sisters of the family find abundant exercise for their taste and industry, in decorating the parish church with wreaths and mottoes, made with evergreens, flowers, and berries. The old English custom of the "Mummers" going about at Christmas has almost disappeared; only in rural districts are Christmas carols to be heard, while in the metropolis the "Waits" are usually represented by a wretched imitation of a German band, playing the latest polkas and nigger melodies.

The ancient Christmas ceremony of the burning of the yule log on the 24th of December, although now nearly fallen into disuse, still lingers in many parts of the country. The placing of the large block on the hearth was observed with great ceremony; and so hallowed was the log held, that the unconsumed portion was carefully laid by, to be used at the next anniversary.

December was styled "Winter monath," or winter month, by the Saxons, whilst they were pagans. After their conversion to Christianity, they changed it to "Heligh monath," or holy month, from the anniversary of the birth of the Saviour, which occurs in it. The Germans still designate it as Christmonat. The shortest day in the year is the 22nd of December. This is called the winter solstice, in contradistinction to the summer solstice, which happens on the 21st of June, the longest day of the year.

Cook's Calendar for December.—FISH IN SEASON.—Cod, turbot, brill, dory, eels, gurnard, haddock, halibut, hake, skate, smelts, sole, whiting, plaice, ling, herrings, sprats, sturgeon, crabs, lobsters, shrimps, tench, carp, perch, pike.

MEAT IN SEASON.—Beef, veal, mutton, house lamb, pork, doe venison.

POULTRY IN SEASON.—Capons, chickens, fowls, geese, turkeys, ducks, guinea-fowl, pigeons.

GAME IN SEASON.—Grouse, black game, partridge, pheasant, plover, snipe, woodcock, wild duck, teal, widgeon, rabbits, hares.

VEGETABLES IN SEASON.—Beet, Jerusalem artichokes, brocoli, cabbages, celery, carrots, parsnips, potatoes, turnips, winter spinach, lettuces, leeks, onions, endive, forced seakale.

FRUIT IN SEASON.—Apples, pears, chestnuts, oranges, nuts, walnuts, grapes, dried figs.

Gardener's Calendar for December.—All outdoor work must greatly depend on the state of the weather in this month. The alterations begun in November may be carried on; the weather is generally too unsettled to admit of much planting, but the removal of trees and shrubs may be proceeded with, if the early part of the month be moderately dry, and free from frost. Sow beans, peas, and early potatoes in sheltered spots, where they can be protected if a sharp frost sets in. Cover seakale and rhubarb for forcing; earth up celery; lop trees that require trimming, dig up and top-dress beds, leaving the earth rough, to expose it to the influence of frost, which is most useful, not only in pulverizing the earth, but in destroying grubs and insects. Cover the roots of wall-fruit trees with litter, also the roots and stems of vines, as well as all half-hardy shrubs, fuchsias, &c. As a general rule, all plants in pits, frames, or houses should have very little water, perfect protection from frost and harsh winds, and as much air as possible. Manures and composts should be collected and well stirred up during this month, to promote decomposition and prevent heating. The best things to form a compost are road scrapings, loam, silver sand, cow-dung, leaves of trees, decayed turf, and the sweepings of the poultry-yard. These should be all well mixed together, and frequently turned, to expose all parts to the action of the atmosphere, and should not be used in the garden until thoroughly well rotted. The roots in the store-house should be frequently examined,

and any decayed parts removed; the lawns also and gravel walks should be kept trim and in good order.

A Few Words on Puddings.—Many people suppose that "there is no *art*" in making a pudding,—"any one can do it." This is true, any one *can* make a pudding, but every one cannot make a *good* pudding. To help those who are desirous of accomplishing this domestic feat, shall be our aim in the few observations we now make to our readers.

The Ingredients.—Few puddings are made without flour; this ought always to be the best in quality, carefully dried and sifted.

The Suet.—Beef suet from the inner side of the loin or that round the kidney is the best; it must be perfectly fresh, chopped small, and quite free from skin or sinew. In chopping or mincing it in a machine, dredge it with dry flour to prevent it from sticking. Suet is better chopped than minced, as the machine usually makes it too fine for ordinary puddings.

The Butter.—If it is salt or Dorset butter, wash it well with a butter slice or wooden spoon, in two or three waters, so as to extract the salt, then squeeze it in a perfectly clean cloth.

The Eggs.—These must be good, as the slightest taint will spoil the pudding; it is a good plan to break each egg separately into a cup and examine it, before mixing with the others. A good egg will have a plump round yolk, which does not break on being poured from the shell into the cup. Eggs should be thoroughly well whisked for a pudding. Sometimes it is necessary to beat the yolks and whites separately, but in all cases they must be well beaten, or the pudding will be heavy.

The Fruit.—Raisins should be picked from the stalks and stoned carefully. Currants should be well washed; this is done by putting them into a colander; pour warm water over them, and stir them about that the earth and sand may be washed away. Pick out all stones and grit, and throw them into a dry cloth; rub them about gently in this till they are tolerably dry, then lay them on a large dish before the fire, and sprinkle a little flour over to help to dry them.

Candied peel is a great addition to most puddings; this should be nicely sliced in rather short slices, and well mixed with the other ingredients.

The spices used for puddings are ginger, nutmeg, cloves, cinnamon, and sometimes allspice or pimento. These should be of the best quality, freshly ground, and so used that the flavour of one shall not greatly prevail over the others.

To Mix a Pudding.—The great element of success in mixing a pudding is to carefully follow the receipt. Weigh each article exactly as recommended, and beware of the too common idea of cooks that they can judge of a quantity by its weight in the hand; nothing is more deceptive than this plan, and many a receipt has been condemned as a bad one, while in reality the fault lay with the cook, and not in the receipt. Exactitude in measuring the quantities of the ingredients, in mixing them together, and in the time requisite to cook them, will insure success; and should the pudding not please the palate of those for whom it is intended, the maker has the satisfaction of knowing that the directions given have been fully followed out, and she cannot be blamed for want of success. We shall now give a few receipts for puddings.

Christmas Plum Pudding.—Put two pounds of muscatel raisins, stoned, but not chopped, into a large earthenware pan, add to them one pound of sultanas, two pounds of currants, washed and picked, two pounds of bread crumbs, one pound of candied peel, sliced, two pounds of good moist sugar, two pounds of beef suet, chopped fine, two ounces of mixed spices, and a teaspoonful of salt. Mix all these ingredients thoroughly together, and moisten the mixture with sixteen eggs well beaten. Just before boiling the pudding, put in a gill of good brandy, with a teaspoonful of essence of lemon

peel, and one of ratafia mixed in it. If the pudding is not sufficiently moist, add fresh milk enough to make it so, and put in a large heaped tablespoonful of dried flour. These quantities will make a very large pudding. It may be boiled in a large new linen pudding-cloth, prepared thus:—dip the centre of the cloth into boiling water, wring it out dry, spread it on the kitchen table, and with a knife rub butter all over the wet part; then dredge it thickly with flour to prevent the water getting in, pour the pudding into it, tie the cloth so tight that there is no possibility of the water entering, boil from six to eight hours, or the mixture may be divided and boiled in moulds.

A plum pudding is better if it is made before it is required for use. In such a case boil it in a cloth, for five or six hours, then take it out and hang it up in the cloth, and when needed for table, put it down in boiling water, and boil from two to three hours, according to the size; when boiled enough, stick it all over with sweet almonds, blanched and sliced, put a sprig of holly in the top, pour a spoonful of brandy round the pudding in the dish, set it on fire, and send to table blazing; serve brandy sauce with it.

A Plain Plum Pudding.—Take of ordinary pudding raisins, stoned, washed currants, chopped suet, and moist sugar, each one pound; put these into a basin with half a pound of bread crumbs, half a pound of flour, two ounces of sliced candied peel, one dessertspoonful of mixed spices, and six eggs well beaten; mix well together, and add a wineglassful of brandy with a teaspoonful of essence of lemon peel; boil for four hours.

A Chancellor's Pudding.—Butter a pudding mould half an inch thick, stick large raisins, stoned, as thickly as possible in the butter, put in a layer of fine bread crumbs half an inch deep, strew a tablespoonful of moist sugar over, then put a layer of currants, washed and dried, strew over them candied peel, sliced thin, and a little grated nutmeg; then another layer of crumbs and sugar, then one of currants, and so on until the mould is three-fourths full; whisk ten eggs, yolks and whites together, add to them a glass of brandy and a teaspoonful of essence of lemon peel, fill the mould with this, and steam the pudding for two hours and a half; serve with arrowroot and brandy sauce.

Sponge Pudding.—Break some stale sponge cakes into a buttered mould, strew amongst them chips of candied peel, fill the mould rather more than half full, make a good custard, with a glass of brandy in it, pour it into the mould, and let it stand for an hour; steam the pudding for an hour and a half, dissolve some red currant jelly in a very little warm water; when the pudding is dished pour the jelly over it, and serve with arrowroot and brandy sauce.

Lemon Suet Pudding.—Peel the rind of a large lemon rather thickly, put the rind to boil in water till it is perfectly soft, pound it in a mortar with an ounce of white sugar, till reduced to a pulp; put this into an earthen pan, with eight ounces of bread crumbs, eight ounces of fresh beef suet minced fine, three ounces of powdered loaf sugar. Mix all well together, with five eggs well whisked, and the juice of the lemon; stir in a tablespoonful of flour, and boil for an hour in a well-buttered mould. Or this pudding may be baked, in which case eight ounces of washed currants and a little sliced peel are an improvement. Serve with wine sauce.

Palmyra or Date Pudding.—Take a pound of dates, chopped fine and free from the stones, a pound of flour, half a pound of suet, and a quarter of a pound of moist sugar. Mix all well together, and make them into a dough with milk, and boil in a basin or cloth for three hours, or bake slowly for two hours.

An Excellent Bread and Butter Pudding.—Cut thin slices of bread and butter without crust, spread apricot or orange marmalade on each slice, lay

them in a buttered mould or basin, and pour over a well-seasoned custard; let it stand half an hour, then steam it for an hour. Serve with wine sauce.

College Puddings.—Take equal quantities of bread crumbs, beef suet chopped, and washed currants; add mixed spice and moist sugar to taste. Moisten the mass with a beaten egg or two according to the quantity, add a little brandy and lemon chips; form the whole into balls about as large as a pippin, rub them over with egg, and roll them in flour, then fry a nice brown in butter. Serve with wine sauce.

Ground Rice Pudding.—Wash four ounces of ground rice, pick out any black things that may be in it, and set it to boil in a pint of rich milk, until the milk is thickened with the rice; then add four ounces of fresh butter, the yolks of eight eggs well beaten, six ounces of white sugar powdered, sixty sweet and twenty bitter almonds, blanched and pounded, and a glass of brandy. Mix well together, put it in a mould, and bake it for three quarters of an hour.

Permanent Lemon Pudding.—Rub the rind of a large lemon on four ounces of lump sugar; beat the yolks of four eggs, and put them with the sugar and four ounces of fresh butter into a clean stew-pan; simmer for a quarter of an hour. A few minutes before it is done, add the juice of the lemon, strained, and a small glass of brandy; put it into jars, it will keep for a long time. When about to use it, steep a small sponge cake in sherry, beat it up, and add it to the mixture; it may be either baked or boiled.

Fig Pudding.—Chop half a pound of fresh beef suet very fine, put it into a basin, add to it half a pound of fine bread crumbs, the same quantity of dried flour, six ounces of moist sugar, and half a small teaspoonful of grated nutmeg. Mix all these well together, and then put in two pounds of figs cut in small pieces, moisten it with three eggs well beaten. It should make rather a stiff dough. Add a little milk if the eggs do not make it sufficiently moist, press it into a well-buttered mould, and boil for four hours at least. This pudding requires to be well boiled.

Sauces for Puddings.—Wine Sauce.—Make about a cupful of thin, smooth melted butter (melted with water and flour), add a tablespoonful of moist sugar, half a teaspoonful of essence of lemon peel, and a little grated nutmeg. Mix these well together with two glasses of sherry, and heat, but do not let it boil. Serve hot.

Arrowroot Sauce.—Blend a dessertspoonful of arrowroot with cold water, pour boiling water over it (stirring all the time) till it looks quite clear, put it into a saucepan with a little essence of lemon; brown sugar to taste, half a glass of sherry, and half a glass of brandy; stir till it is thick enough.

American Butter Sauce.—Wash a quarter of a pound of fresh butter with a wooden spoon in two or three waters, to remove every particle of salt; beat it with the spoon always the same way till it is like cream, then take a whisk and whisk it till quite white, adding to it, *very gradually*, two tablespoonfuls of powdered sugar and a glass of sherry, with a little essence of lemon or orange flower water in it. This sauce is extremely nice with plum pudding or fig pudding.

Mince Pies.—The following receipt for mince pies appeared some time since in the *Queen* newspaper; we have tried it, and found it so excellent, that we make no apology for introducing it to the notice of the readers of Best of Everything:—"Take two pounds of beef suet, chopped fine, add two pounds of apples, pared and minced fine, two pounds of currants, washed and picked, two pounds of raisins, stoned and chopped fine, half a pound of moist sugar, a quarter of a pound each of citron, candied lemon, and orange peel, two nutmegs grated, half an ounce each of salt, ginger, allspice, and cloves, all ground fine, the juice of one lemon, with the rind grated; mix

all well together with brandy and sherry, (a quarter of a pint of each), put all into a jar, and keep it in a cool place. For the pies, roll out puff paste to the thickness of a quarter of an inch, line some good-sized patty pans with it, fill them with the minccmeat, cover with the paste, and cut it close round the edge of the pan. Put them into a brisk oven, beat the white of an egg to a stiff froth, brush it over them when they are baked, sift a little powdered sugar over them; replace in the oven for a minute or two to dry the egg. Serve on a table napkin very hot.

Christmas Goose Pie.—Bone a large goose and a good fowl. Make a forccmeat of minced tongue, ham, veal, and suet; season it with sweet herbs, parsley, lemon, pepper, mace, and salt. Mix it with two eggs, and fill the inside of the fowl with it; put the fowl inside the goose, make a gravy with the trimmings of the fowl, the tongue, any pieces that may be left of the veal, and a calf's foot or cow's heel; stew the goose, with the fowl inside, in this gravy for twenty minutes or half an hour, then lay the goose in a game pie-dish, or a large raised piecrust, such as is made for game pie or venison pasty; fill up the vacant spaces with partridges, snipe, or any other small birds, and the remains of the forcemeat, slices of boiled ham, &c. Strain the gravy through a jelly-bag till it looks clear, pour it over the pie, lay some bits of butter on the top, and bake the whole for three hours. It is eaten cold, and if well made, is extremely good and savoury; it will keep a long time. The gravy should make plenty of clear jelly. If an ornamented game pie-dish be used, bake the birds and forcemeat beforehand in a separate dish, lay them as directed in the pie-dish while hot, and pour the clear gravy over.

Secondary Cookery.—At page 258 we gave a few receipts for cooking several kinds of meat a second time in a savoury and economical way. We shall now proceed to give a few receipts for re-cooking fish, which we hope may be found equally palatable.

A Plain Fish Pudding.—Take the remains of cod or haddock left from the previous day, cut it from the bone and skin, put the bones to boil in a little milk, with mace and a few white peppercorns; line a pie-dish with nice mashed potatoes, lay the pieces of fish in it, and pour over it the milk in which the bones have been boiled, through a gravy strainer; add any remains of oyster sauce that may have been left, or a few oysters. If oysters cannot be had, anchovy sauce, or three pounded anchovies give a nice flavour. Cover the dish with mashed potatoes, brush the top with egg, and bake it.

Another Receipt.—Put into a stew-pan nice pieces of cod that have been already cooked. Add a dozen and a half of oysters with their liquor strained, a large piece of butter rolled in flour. Let it just come to a boil, then set it aside; warm a shallow pie-dish, line it with mashed potatoes, leaving a hollow to be filled by the fish and its sauce, then sprinkle bread crumbs thickly over the fish, and brown it in the oven.

Fricandeau of Cod or Sole.—Take the skin and bone from about a pound and a half of cooked cod or sole, mince it up with two dozen of oysters and two anchovies; season with mace, nutmeg, and cayenne; soak the crumb of two French rolls in a glass and a half of white wine, beat them up with the yolks of three eggs, add the fish and half a teacupful of good cream; warm it all over a slow fire, then put it into a buttered mould, strew bread crumbs thickly over it, and brown before a brisk fire in a Dutch oven. Turn out of the mould, and serve.

Fish, a la Bechamel.—Take a pint and a half of the white stock mentioned at page 259, put it into a stew-pan with a bunch of sweet herbs, a little parsley, two bay leaves, two blades of mace, two cloves, three or four mushrooms, and a pint of cream or rich milk; boil it until the essence of the herbs is extracted, then strain it, and blend with it a tablespoonful of arrowroot; let it come to a boil, and if too thick, add a

little more milk. Cut any cold fish—turbot, cod, sole, or any large white fish—in pieces, free from bone or skin, put it into the sauce, and let it be heated. Put a wall of boiled rice, fried bread, or mashed potatoes, round a dish, and put the fish and sauce in the middle of it.

Scallop of Fish.—Butter a dish, lay pieces of cold fish all over the bottom of it, squeeze a little lemon juice over it, and sprinkle it with grated lemon peel, powdered sweet herbs, pepper and salt; then cover the whole with bread crumbs thick enough to completely hide the fish, stick little bits of butter over the top, and bake it twenty minutes in a quick oven.

Cold salmon can be made into very nice fish cakes done in the same way as recommended at page 55 for meat cecils.

Diarrhœa.—The most common causes of this complaint are overfeeding and the use of improper food, such as unripe or partially decayed fruit, raw vegetables, sausages made from bad meat, &c.; rich food, such as pork, goose, duck, and salmon; an unhealthy state of the atmosphere, from overcrowding, from open drains or cesspools, or the fumes of decayed animal or vegetable matter, as well as extremes of heat or cold, and especially the use of impure water. Indeed, as a general rule, when diarrhœa prevails in a community or household, it can always be traced to one of three causes,—bad atmosphere, bad water, or bad food.

Symptoms.—The symptoms of an attack of diarrhœa are purging, with griping pains in the abdomen, nausea, a dirty or furred tongue, foulness of breath, and a general feeling of distress and uneasiness. In treating cases of this complaint the first thing is to ascertain the cause, and, if possible, remove it.

Treatment.—When the attack is brought on by the use of improper food, a mild purgative should be given, such as one or two teaspoonfuls of castor oil, with from five to fifteen drops of tincture of opium, according to age and the severity of the attack, followed by the use of an astringent mixture, electuary, or powder. It must, however, be borne in mind, that attacks of diarrhœa are sometimes liable to assume a chronic form, becoming very troublesome, and eventually injurious to the health; the aid of a medical man should therefore be at once sought, if the attack appears likely to continue any length of time.

Treatment of Cuts.—General Remarks.—All that is requisite in treating incised wounds, or cuts of an ordinary kind, may be stated very briefly. Let the surrounding blood be cleared away, as well as any extraneous matter; and let the lips of the wound be brought neatly and closely together, and retained in that position by slips of adhesive plaster; and if the wound be deep and extensive, the wound itself, and the adjacent parts, must be supported by proper bandages.

Slight Cuts.—In slight cuts, such as are inflicted with a small knife, Riga balsam is an excellent application, as it usually stops the bleeding immediately. The application of cobweb is often extremely useful in obstinate cases of bleeding.

Great Wounds.—In great wounds where some severe injury has been received, a skilful surgeon ought to be summoned without delay. The only domestic treatment that can be prescribed, is that of attempting to stop the blood, by a tight ligature above the wounded part, until efficient assistance can be obtained.

Excoriations are affections of the cuticle, sometimes accompanied by slight inflammation, and occasionally depending on constitutional causes. In the case of infants they are effectually treated with Goulard water, or by dusting a little flour or calamine powder over the part affected, twice a day. Washing with cold water is also a good mode of treatment. In grown-up persons, dressing the place with saturnine ointment, or with Turner's cerate, will be found beneficial. These preparations can readily be obtained at the druggists. When the cause of the ailment appears to be constitutional, some

internal medicine will be necessary, such as the decoction of sarsaparilla, or quinine pills; to be taken twice a day, together with an ordinary alterative pill every night.

Depilatories.—These are chemical preparations for the purpose of removing superfluous hairs from the human skin. They are, it must be acknowledged, frequently injurious, and when absorbed by the skin may be even productive of danger. The *Oriental Rusma*, which is a celebrated preparation, may be briefly described, and our readers will readily perceive of how caustic a nature it is, and how liable to do injury to the skin. It is composed of the following ingredients, viz., two ounces of quicklime; half an ounce of orpiment—which is a preparation of arsenic,—and strong alkaline ley. A little starch or soft soap is added to temper these ingredients and form them into a sort of pomatum. This substance removes the hair in a few minutes; but in the opinion of many practical chemists, it would be wiser to pull out the hair by the roots than have recourse to a recipe which, if less painful, may be much more injurious.

Nightmare.—This affection is of a nervous character. The sensation is preceded by some fearful dream, in which most commonly some implacable enemy, known or unknown, is represented as in close pursuit of the dreamer, and from whose grasp he finds it impossible to escape. The dreamer likewise is terrified by some impending danger from some obscure source, but which he feels himself unable to evade. These painful visions are accompanied by violent struggles and tremors, and a sense of oppression in the region of the chest, and the sleeper awakes in the effort to escape the threatened evil.

Nightmare occurs most frequently in persons of an irritable or nervous temperament, and of a weakly constitution, and especially among those who are subject to depression of spirits. Others are, it is true, affected by it occasionally, but probably much more rarely and in a less degree. There are several exciting causes, such as great fatigue of mind or body, indigestible food, or chronic disorder of the stomach and bowels. Medical men frequently regard nightmare as a certain indication of derangement of health.

Treatment.—The treatment of this affection is similar to that usually prescribed for indigestion. Body and mind ought to be kept as free as possible from fatigue and commotion; the diet should be light, especially at supper, a meal which ought to be very simple and small in quantity, and in which animal food ought to be entirely avoided. A considerable amount of exercise on foot or horseback is likewise extremely desirable; an occasional pill, moreover, made according to the following prescription, will be found very useful. Compound extract of colocynth, half a drachm; compound rhubarb pill, one scruple; Castile soap ten grains; oil of juniper, five drops, divided into twelve pills. One of these pills may be taken at bedtime occasionally. If the stomach and general habit be weak, a pill taken every night, made of sulphate of quinine and extract of gentian, and which can be usually had ready made at the apothecary's, will be found a valuable tonic.

Tonics.—Mixture for Indigestion.—Infusion of calumba, five ounces and a half; compound tincture of cinnamon, two drachms; syrup of orange peel, two drachms. Mix. This mixture possesses excellent tonic properties. It is of great use in biliousness and indigestion. The dose is two tablespoonfuls every four hours.

Mixture for the Stomach.—Sulphate of quinine, four, six, or eight grains; cinnamon and common water, each two and a half ounces; syrup of orange peel, six drachms; tincture of orange peel, two drachms. Mix. Two tablespoonfuls to be taken twice or thrice a day.

Diuretic Mixture.—Infusion of foxglove, four ounces; tincture of foxglove, half a drachm; acetate of potash, one drachm; tincture of opium, ten drops. Mix. The dose is a tablespoonful twice or thrice a day.

Infusions.—These are solutions of vegetable substances, and are obtained by maceration in hot or cold water. Their strength and quality depend in many cases on the heat of the water with which they are made. This is the case with bitters.

Infusion of Peruvian Bark.—Peruvian bark bruised, half an ounce; boiling water, half a pint. Macerate in a covered vessel for a couple of hours, and strain the infusion. This is of great use in convalescence from acute diseases. It contains a considerable amount of the febrifuge and strengthening qualities of the quinine.

Tonic Infusion.—Gentian root sliced, half an ounce; dried orange peel bruised, coriander seeds bruised, of each a drachm; boiling water, twelve ounces. Macerate for an hour in a lightly covered vessel, and strain the liquor. This infusion is often most beneficially employed in general debility, chronic gout, indigestion, and other ailments. The dose is from one to two ounces three or four times a day.

Infusion of Senna.—Senna leaves, an ounce and a half; ginger root sliced, one drachm; boiling water, a pint. Macerate for an hour, and strain. This is a purgative frequently employed by medical men, and often given mixed with a little Epsom or Glauber's salts. It is of great service in all acute diseases.

Infusion of Calumba.—Calumba root, one drachm; boiling water, half a pint. Macerate for four hours and strain, adding afterwards half an ounce of spirit of cinnamon. The dose is an ounce and a half or two ounces. It is an excellent tonic, and is held in high esteem by many eminent physicians, who employ it in the latter stage of diarrhœa, bilious intermittent fever, and puerperal fever. It allays the nausea and vomiting which often accompany pregnancy.

Demulcent Infusion. — Bruised linseed, one ounce; liquorice root sliced, half an ounce; boiling water, two pints. Macerate for four hours in a covered vessel, and strain the infusion. This is a most useful preparation for allaying inflammation and irritation in the urinary organs, and in coughs and other ailments. It is of great use as the means of administering other medicines.

Tinctures. — For Chronic Looseness, &c.—Extract of catechu, three ounces; cinnamon bark bruised, two ounces; proof spirit, two pints. Macerate these ingredients together fourteen days, and filter. Dose—from one to two teaspoonfuls. This preparation will be found of excellent service not only in the ailment above referred to, but in others in which warm astringents are required.

Tincture of Aloes for Indigestion, &c.—Socotorine aloes, myrrh, of each one ounce and a half in powder; English saffron cut, one ounce; sulphuric ether, with alcohol, one pint. Digest the ether and myrrh together for four days in a closed bottle; then add the aloes and saffron. Digest the whole again for four days, and when the dregs have subsided, pour off the liquor. This tincture has a purgative effect; but it is warm and grateful to the stomach, and is of much use in bilious affections, jaundice, green-sickness, and gout. The dose is a drachm twice or thrice a day.

Tincture of Bark for Fever and Ague.—Lance-leaved Peruvian bark powdered, two ounces; dried orange peel, an ounce and a half; bruised Virginian snakeroot, three drachms; saffron, one drachm; cochineal powdered, two scruples; proof spirit, twenty ounces fluid. Macerate together for a fortnight, filter. This is an excellent tincture; and it is grateful to the stomach, and has much power in subduing low nervous fever or ague. Dose—from one to three drachms every two, three, or four hours. The preparation is understood to be identical with what is known as Huxham's tincture.

Astringent Electuary.—Extract of catechu, one ounce; kino, six drachms; nutmeg and cinnamon, each two drachms; opium dissolved in white wine, twenty grains; syrup of

roses boiled to the consistence of honey, nine ounces. Reduce the solid ingredients to powder, and mix them with the opium and syrup so as to form an electuary. In this preparation there is a combination of astringents and aromatics which render it of great service in chronic looseness, dysentery, and discharges of blood from the bowels. The dose is from a scruple to two drachms twice or thrice a day.

Astringent Powder.—Compound powder of ipecacuanha, three grains; compound powder of cinnamon, eight grains. Mix. The powder tends to relax the skin, allay pain, and check looseness of the bowels. It may be repeated every three or four hours.

Lotions.—Nitric Acid.—Two drachms of diluted nitric acid and a pint of water mixed together. This lotion is stimulating and cleansing. It is very useful when applied to foul and fœtid ulcers; it is likewise of considerable value in caries of the bone and threatened inflammation. It was the favourite lotion of Sir Astley Cooper in cases of unhealthy ulcerations requiring the application of a stimulant.

Anodyne Lotion.—Crude opium, two drachms; warm water, one pint. Rub the opium for a few minutes in a mortar with a little of the warm water, then pour in the remainder of the water and mix them well. This is an excellent wash for painful and irritable ulcers and swellings.

Astringent Lotion.—Sulphate of zinc, two drachms; water, one pint; camphorated spirit of wine, two drachms, mixed together. This is an excellent lotion for piles. Let it be used night and morning.

Alum Water Lotion.—Alum and sulphate of zinc, of each half an ounce; boiling water, two pints. Mix, and filter the solution. This is an astringent and cleansing solution, beneficially employed in ulcerations.

Superior Goulard Water.—Extract of lead, one drachm; distilled vinegar, two ounces; proof spirit of wine, half an ounce; water, one pint. Mix these ingredients together.

Deafness.—General Remarks.—Deafness, strictly speaking, is a total inability to hear articulate sounds, but the word is usually employed to indicate any defect in the organ of hearing, or any degree of difficulty in the perception of articulated sounds. There are various causes to which deafness, or the degrees in which it prevails, may be attributed; these are local defects or impediments in the outer or inner entrance, or in the cavity of the ear, or there may be local debility or relaxation induced by a variety of causes. Many a child has been made deaf for life by boxing his ears, because the "drum" of the ear is a membrane as thin as paper, which stretches like a curtain just inside the external entrance of the ear; there is nothing but air just behind it, and any violent concussion is liable to rend it in two, and the hearing is destroyed for ever, because the sense of hearing is caused by the vibrations of this drum, or "tympanum." Picking the ears is a most mischievous practice. In attempting to do this with hard substances, an unlucky motion has many a time pierced the drum, and made it as useless as a pierced india-rubber ball. Nothing sharper or harder than the end of the little finger, with the nail pared, ought ever to be introduced into the ear, unless by a physician. The subject of deafness is so important as to call for some detail, which, however, shall be as concise as possible.

Organic Defects.—These may exist in the outer or inner entrance, or in the cavity of the ear. Sometimes the outer entrance is found to be closed more or less by a preternatural membrane, which may be situated either superficially, or may have its locality deep in the external cavity of the ear; and sometimes an obstruction may exist caused by indurated wax or some extraneous substance. Deafness may likewise be caused by obstruction of what is called the "eustachian tube," or may be occasioned by ulceration or

some other affection of the tympanum, or drum of the ear, or by an insensible state of the auditory nerve, or the surface over which it is spread. It may be caused also by a cold, by long exposure to loud and deafening noises, by fevers, inflammations, headache, rheumatisms, and by cutaneous eruptions which have been repelled.

Mode of Treatment.—This must necessarily depend upon the nature of the cause of the malady, and therefore must vary with the circumstances of the case. Great care, therefore, ought, in the first instance, to be taken to ascertain the true nature of the cause by which the deafness is produced. The advice of a medical man should at once be obtained, especially in the case of children, who are sometimes born with a preternatural membrane, which closes the external opening of the ear, and for the removal of which the surgeon's skill will be indispensable.

Dulness of Hearing.—If this is caused by a deposit of hardened wax in the ear, the patient frequently complains of noises and confused sounds. One of the most effectual modes of removing the obstruction is that of syringing the ear with warm water three or four times a day, until the wax is removed. A syringe capable of containing six or eight ounces of water ought to be used, and some hours before it is employed a little warm sweet oil should be dropped into the ear.

Extraneous Bodies.—In cases in which these have got a lodgment in the cavity, it is extremely important to have recourse to the aid of an aurist, who has given his special attention to the structure and diseases of the organ of hearing, as a want of professional skill may aggravate the evil, and occasion irremediable injury to the delicate organism on which the accurate sense of hearing depends. Deafness arising from ulceration in any part of the ear, or from disease of the tympanum, requires the special attention of a medical adviser, who, in addition to local treatment, may find it requisite to prescribe remedies applicable to the constitutional causes of the malady, and which cannot with sufficient safety be applied without professional advice. The celebrated Abernethy believed that in a great many instances deafness might be removed or greatly alleviated by a soothing treatment, and by improving the condition of the digestive organs, by the judicious use of alterative medicines, and careful attention to diet and regimen; and the authority of that eminent physician affords ample evidence of the importance and value of proper medical treatment, in all cases of deafness, and from what causes soever they originate.

Teaching the Deaf and Dumb.—The power of forming articulate sounds by which to communicate our ideas to others—in short, the capacity of speech—depends almost wholly on our possessing the power of hearing. Language is acquired by imitation; if we cannot hear the sounds which indicate ideas, we cannot form them. Even if after a period of maturity the hearing is lost, the loss brings with it, not the inability to speak, but inability to regulate the quantity of sound, or the tones of the voice, except in a very imperfect manner. Those who are born deaf or lose their hearing in infancy, are necessarily dumb, not from any peculiar defect in the organs of speech, but from the impossibility of learning the art of speaking by articulate sounds, inasmuch as such sounds never being heard cannot be imitated. As a general rule, therefore, it may be said that dumbness is the consequence of deafness.

Inability to perceive sounds, and its necessary consequence, inability to speak, constitute a very great calamity. It is quite possible, however, that the afflictive character of this peculiar deprivation may be much more apparent to those who can hear and speak, than to the deaf and dumb themselves. If we had no organs of hearing, and consequently no power of speaking,—that is to say, if deafness and dumbness were the universal rule instead of the exception,—we should have no more idea of

the nature and value of the sense and the power withheld from us than we at present have of the nature and importance of some other senses which might have been conferred on us, but of which we cannot so much as form any conception. The probability, therefore, is that the deaf and dumb feel their incapacity much less acutely than those who can hear and speak can readily comprehend. And it may be difficult to convince people of the accuracy of this supposition. That a large number of persons are both deaf and dumb is proved by authentic statements, the proportion being about one in every 1,590 of the population of Great Britain and Ireland. According to the last census but one, there were in the whole population of the British Isles, which amounted then to about 28 millions, 17,300 persons deaf and dumb.

Whether this special defect can be so effectually remedied, that deafness and dumbness shall cease to be found in the catalogue of human afflictions, it would perhaps be both rash and unphilosophical to deny. Holding, as we do, that the vast majority of the diseases under which mankind suffer are due to human error and ignorance, we are inclined to believe that advancement in intelligence, knowledge, and virtue, in conjunction with suffering itself, may go far to remedy evils which at present we look upon as all but incurable, and unfold to us physiological, as well as moral laws, capable of explaining many things now inscrutable, and suggesting for many of these, remedial and preventive measures, of which we cannot at present form an adequate idea. Whatever the truth may be on this subject, the condition of the deaf and dumb demands our utmost sympathy, and it is our duty to alleviate their affliction by every means in our power.

Musical Hints to Mammas.—When should the Girls begin Music?—This question may be answered, as regards the pianoforte, by advising that they commence as early as possible; three or four years old will not be too soon to begin to teach them their notes, and some of the simplest lessons in the instruction books. At this tender age, however, it would be a mistake and a cruelty to make the study of music a piece of taskwork, or to prolong the daily instruction beyond half an hour. A quarter of an hour regularly observed will accomplish much, without robbing the child of that out-of-door recreation which is of such material importance in the foundation of a healthy constitution.

The chief reason for an early commencement is that it prevents the necessity for the lengthened application which must be undergone when music is commenced later in life. The child who has learned the rudiments of music, and commenced its practice from early childhood, is found to have accomplished more by this pleasant and gradual course, than they who, having commenced to learn at ten or twelve, devote themselves to laborious practice at the expense of their health, as well as of their other studies.

Any mother may teach her children their notes, and many may even take the place of the music instructor for a long period of these early lessons, provided she have herself been well taught. The chief fault of which an incompetent teacher may be the cause, is an incorrect position of the hands of the little pupil on the piano. The rudiments of music, and daily practice, in finding out notes on the piano, (exercises for which may be either written by the parent, or found in many easy pieces of published music,) would afford plenty of scope for the maternal teacher, and no risk of straying in a wrong road need be feared as far as these departments are concerned. When the little lady thoroughly knows her notes, she will be ready for a professional master, who should be the best that can be procured. The mother's daily lessons need not then be given up; indeed, they will be of material assistance in promoting the studies set out by the master. With regard to the pianoforte, therefore, begin early—the earlier the better.

Singing.—This may be encouraged from early childhood; but for physical reasons, the trying vocal exercises necessary for a complete training of the singing voice, should be deferred until after about the age of sixteen. The simple exercises used in school classes for sight singing, the hymnody at a place of worship, and the joyous snatches of song which the musical child loves to carol through the house, do not, however, come under the slightest objection. Their use and enjoyment should be encouraged in every way. Our exception applies only to any severe vocal exertion, with a view to what is called voice development, at the tender age of which we speak. At the right time its results are beneficial—indeed, in some cases magnificent. It is simply against its too early enforcement that we caution mothers, who, having an idea that because early singing is everywhere recommended, excessive vocal exertion is thereby implied.

Mamma and her Boys.—The male portion of the community, in this country, do not give that practical attention to music which is observed among those of other countries. The author of these short notices has been gratified to find, that in some Continental circles, a gentleman who does not play the piano, is as rare as the gentleman who could not sing "at sight" in the Tudor period, and who was on that account ashamed of the incompleteness of his education. Would that something of this feeling existed among us now!

A mother once exclaimed to the author, that she could not keep her dear boys at home. He at once advised that they should be taught music, and the result proved most successful; a love of home having grown with an increase in its attractions, and the acquirement of a humanizing art, as well as fascinating accomplishment, having been added to the many deep obligations which they owed to the maternal care.

What Instruments should Boys play?—What are called orchestral instruments, especially those of the violin tribe, are generally preferred for boys, and they certainly add to the attractions of the musical evening in the drawing-room. There is no reason, however, why a boy should not learn the pianoforte, or a girl the violin,—the latter being, in fact, an instrument specially suited to a lady, and, indeed, gradually coming into fashion as such. Wind instruments, such as the *cornet-à-piston* and *flute*, should not be chosen, except under medical sanction.

Finally, mothers should uphold the authority of the music-master, and see that his directions are faithfully carried out. The practice of the exercises so necessary in instrumental music, should be encouraged and rewarded, and on no account should their uninteresting or even disagreeable effect be mentioned, as it would at once provide an excuse for the curtailment of labours which appear to "annoy mamma." The same remark applies to classical (that is the best) music, which mamma should ever uphold in the eyes of her children, and second the teacher's efforts to promote.

Let us advise reference to the articles on the *Pianoforte*, *Harmonium*, *Singing*, *Practice*, and *Domestic Concerts*, in other pages of the present volume.

Hints on Home Decoration.—Fretwork.—This branch of art, which is found so useful, and may be so generally applied in the decoration of the house, is extensively practised by ladies, and is of such a nature that it appears to be specially suited as an artistic employment for them. The process is by no means a purely mechanical one, yet it is so simple that it may be more or less successfully practised by all; while the skilful and tasteful worker, who makes use of wood carving (see p. 281) to enrich the fretwork, will be able to produce striking, artistic, and even sumptuous effects, by the employment of materials, very few in number, and not costly in price.

Fretwork is the name given to a method of forming ornamental designs

in panels, &c., by sawing out the wood round the different objects of the design. The ornamental screen of perforated wood that runs along the front of a piano, and is usually backed by a curtain of crimson or green silk, may be taken as a specimen of fretwork. The ends of bookslides, photograph frames, table easels for holding drawings and engravings, reading stands, picture frames, ornamental brackets, the borders of the sides of what-nots and bookshelves,—hundreds of the articles, in short, that are found in every middle-class household, may be made highly ornamental by being subjected to the process of fret-cutting.

Tools for Fretwork.—The tool chiefly employed in this kind of work is the buhl or frame saw, by means of which the wood to be removed is sawn out. The frame of this saw forms three sides of a quadrangle; the saw, when fixed in its place by screws, forms the fourth side of the square; or to describe, perhaps, more accurately, the frame resembles a bow much bent, while the saw occupies the place of the bow-string.

The moment this implement is seen in action its merits and capacities will be appreciated. Let us suppose that an ornamental photograph frame has to be cut in fret. We first obtain our design, either by drawing it ourselves or by purchasing it at the toolmaker's, or fancy-shop. We next procure a suitable wooden panel, which shall be a little larger than the design, and will be a little over the eighth of an inch in thickness. This panel, the design having been pasted upon it, is firmly secured upon its "horse" to the bench by means of "cramps." To prevent possible mistakes, we now slightly shade the parts that are to be sawn out with a black-lead pencil. In one of these shaded spaces we cut out a round hole with a gouge. Up through this hole we pass the saw of the frame-saw, and secure it, the frame standing out towards the operator quite clear of the panel. We now commence sawing, and we cut in towards the outline at the nearest point, and follow that outline all round till the object is left, and the superfluous wood cut away.

It will be often necessary, for various reasons, to stop to unfix the frame-saw, and begin from a fresh point, and proceed as before till the work is completed. Having cut out our photograph frame, the design of which, let us suppose, is the vine-leaf and grape, we will vastly improve it by carving. The fruit must be rounded and smoothed with chisel and gouge, the stems must also be rounded, the veins of the leaves must be cut with the V-chisel, and the curl of the leaf suggested by hollowing with the broad chisel. Finally, the background must be levelled with gouge and chisel, and afterwards made uniform in tone by applying the grounding-punch. (See Wood Carving, p. 281.)

The appearance of fretwork is much enhanced by staining and polishing, or varnishing. When the work is intended for the ornamentation of an album or a folio, a coloured border in velvet or some other suitable fabric may be used. These matters, however, the limited space at our command compel us to leave to the ingenuity and taste of our readers.

It may only be added, that among the great variety of woods that can be used for fretwork, the amateur should always select the kind most suitable for his purpose. If his work is to be minute and fine, he must have wood of close grain, such as ebony or box-wood. For bold fret-cutting, or open scroll-work, the cheaper and commoner kinds of wood will suit. Panels may be obtained from the toolmaker, or at a fancy-shop.

How to Decorate a Church.—Christmas.—This very specially English custom becomes every year more prevalent, and unfortunately more costly. The persons who devote their energies to Christmas decorations, are mostly of the thoughtful and earnest class, whose time and money would be spent in works of solid charity, were the pious object they seek, that of welcoming the infant Saviour, attainable at a less cost. We

are anxious on this account rather to suggest the cheaper style of decoration, than to follow the directions given in the elaborate works on this subject.

The custom of decorating our churches at Christmas, although now so much advocated by the highest churchmen, has a heathen origin. The mistletoe, the special badge of Christmas, was accounted dear to Odin, and possessed wondrous charms in mythology to our own ancient Druids. It was the dearest treasure of the woods, reaped by a consecrated priest with a golden sickle, and carried in solemn procession upon a white ox. The holly also received its nobility from the Druids; and the laurel and its congeners claim their descent from the old Greeks.

Before the revival of ecclesiastical art, which so soon followed on the Tractarian movement, our Church decoration was of the roughest kind. The day or two just before Christmas was occupied by the parish clerk in turning the pulpit into a bower of evergreens; if the church boasted of one or more chandeliers, branches were tied to them in such abundance as effectually to nullify the faint light of the candles; twigs were inserted into holes drilled for the purpose along the edges of the pews, to the inconvenience of the worshippers, who, in bending forward, constantly came in contact with the holly spines.

Now-a-days it is different, the drawing-master, as well as the general schoolmaster, is abroad, and great taste is employed in the Christmas decorations. Scrolls formed of thin deal, strong pasteboard, or, best of all for illuminating purposes, of zinc plates, form a fashionable and suitable element in the scheme of decoration. The colour and style of the church must be the guide both as to the form and tint of these.

Materials.—Against old oak panelling a light tint goes best; not white, that is too violent, but a pale stone-colour, with red edge, and letters boldly relieved with black. For the stonework a red scroll is the most telling. Where there is space sufficient, such as round an archway, a beautiful effect may be produced by a red scroll with white letters made on the following plan:—Cut a border the shape of the arch, one and a half feet wide, in the strongest brown paper; several sheets will be required. These can be stitched together with the needle. Paste Turkey twill over the paper. Draw on white cartridge paper the letters required; taking care that they are solid in form, cut them out, paste them on the right side, and lay them on sheets of best white wadding. The flat side of the wadding adheres to the pasted side of the letter, so that you can cut the wadding out the clear shape of the paper: paste these on the red twill, and then make a compact wreath of variegated holly leaves, sewed on ribbon-wire; attach this to both sides of the scroll, and nail it round the arch. The effect is as if the letters were formed of snow.

Wreathing.—For wreathing round pillars, and for the decoration of carved oak, we would suggest a kind of garland, which we learned from the Italians. Take ivy leaves, selecting them of one size—large for pillars, small for woodwork. Procure red worsted braid, half an inch, one inch, or two inches broad; lay one leaf upon the braid, and fasten it with a stitch, then lay a leaf under the braid, the point reaching under the leaf already attached, and fasten that with a stitch. Then lay another leaf above, its point about as far from the base of the first leaf as the breadth of the braid, then another underneath; thus you have a solid wreath, sightly on both surfaces, with a little piece of scarlet appearing between each two leaves. Where time is no object, the wreath is greatly improved by a little bunch of holly berries being sewed in the centre of each of the upper leaves. Where the red braid is an objection, a very pretty wreathing can be made of ivy leaves simply sewed together, one overlapping the other, but this plan necessitates an immense supply of leaves. In either case the wreathing

looks very well suspended in festoons; the under side, though of lighter colour, is equally neat and pretty.

A similar kind of wreath is charmingly adapted for Harvest Homes. In this instance the braid can be green, chestnut leaves should be used instead of ivy, or those of the sycamore, and a small bunch of corn, wheat, or barley, should be fastened in the centre of each leaf.

Where flowers are used, the Christmas rose is certainly the most suitable, as well as the most attainable, and forms a charming decoration for the font. For the finer kinds of wreathing, yew and box are the most suitable, but although they have no great claim to pious relationship in themselves, they have been so widely adopted by the Church of Rome in the northern countries as a substitute for the palm and olive on Palm Sunday, that in Ireland they are respectively called "palm or box palm," and thus gain a kind of affiliation as ecclesiastical emblems.

Easter and Whitsuntide Decorations.—Flowers are the most fitting, but their evanescence presents one great difficulty, and the immense quantity required, a still greater one, especially as regards town churches. The use of moss, which can be brought in great quantities from the country some time before it is wanted, is a grand method of economizing flowers. Take a broad, thin lath, lay a truss of straw along it, and bind it firmly, so as to form a cushion as many inches broad as you desire, then bind the moss upon this, and you have a firm velvet band of moss; it can be made in a plain border, a triangle, or a circle, as desired. Two triangles thus formed make, when united, a star of six points. Then take large flowers, roses, dahlias, or hollyhocks, and fasten them five or six inches apart; twenty-four such flowers will make a splendid star or wreath, but they would make no show at all if bound in with evergreens. Yew or box is also very serviceable treated in a similar way; made into stars and crosses it lasts long, and fresh flowers can be added from time to time. In this way very suitable decorations can be made for graves.

On all occasions the decorations for the font should be white: Christmas roses and snowdrops at Christmas, white primroses, narcissuses, or early-flowering species of hawthorn for Easter, and white roses for Whitsuntide; indeed, at Whitsuntide white flowers should be used as widely as for a universal wedding.

Harvest Homes. — For Harvest Homes fruit should take the place of flowers, but always on the parent branch, to avoid turning the church into a transplanted Covent Garden,—branches of hazel and of apples, and of hawthorn and of mountain ash, freely mingled with wheat, and barley, and oats, and the graceful hop bine.

The Game of Chess.—This celebrated game is played with thirty-two pieces or men, divided into two sets of sixteen each, one set being white and the other red or black. The game is played on a square "board," marked out into sixty-four equal squares, which are alternately coloured black and white or red and white, in order to denote and determine the moves of the various pieces. There are two players, who are opposed to each other; each has one of the sets of sixteen men under his control, consisting of a king and a queen, two bishops, two knights, two castles or rooks, and eight pawns.

Arrangement of the Men. —The chess-board is placed on a table, between the two players, in such a manner that each player shall have a white square at the corner of the board on his right hand. The sixteen men to be played are arranged on the two lines of squares next to the players, the position of the men relatively to each other being the same on each side. The two castles occupy the corner squares on the right and left of the players. Next each castle is a knight, next the knight on each side is a bishop, and in the centre are the king and queen; the queen always occupying at the begin-

ning of the game a square of her own colour, according to the invariable rule to that effect—*gaudet regina colore.* By this means it will be found that the black king occupies the white square on the left of his queen, and the white king the black square on the right of his queen. The men on the king's side of the line are called the king's rook, the king's knight, and the king's bishop; those on the queen's side are called the queen's rook, queen's knight, and queen's bishop; and the pawns are distinguished in a similar manner, as the king's rook's pawn, king's knight's pawn, &c. The squares too are distinguished from each other according to their position in front of the piece or man before which they are. Thus the squares on which the king and queen are placed are called the king's and the queen's square respectively; the square immediately in front of the king or the queen is called "the king's second square" or the queen's second square, and so forth to the adversary's side. The same rule obtains as to the other squares. Thus the squares on which the bishops and other men are arranged at the outset of the game are called the king's or queen's bishop's square, and the squares in front of that square the king's or queen's bishop's second, third, or fourth square, as the case may be.

THE MOVES.—The QUEEN, who is the most powerful of all the pieces, can move over any number of squares and in every direction, either backwards, forwards, or to either side, and either in diagonal or straight lines. The KING can move in every direction, but can take only one step at a time except when he castles, when he moves two steps, and this he can do only once during a game. The BISHOP moves diagonally over any number of squares, the bishop therefore must always remain on the colour which he is placed on at the beginning of the game. The KNIGHT moves two squares, one of them straight and the other diagonal, either backwards, forwards, or sidewise: his move therefore always takes him to a colour different from that which he occupies before moving. He can leap over any piece to the square he intends to occupy. The CASTLE can move to any distance, either forwards, backwards, or to either side, but only in straight lines. The PAWN moves only one step at a time, and only straight before him; in taking any piece, however, he moves one step on the diagonal line, and on making his first move he has the privilege of advancing two squares if he choose to do so.

OBJECT OF THE GAME.—The object of each of the players is to give what is called checkmate to his opponent's king. To this purpose all the moves that are made on both sides are intended to conduce, and when either of the kings is checkmated the game terminates, although the game may be brought to a conclusion by what is called stalemate, or by the circumstance that neither of the two players is able to give checkmate to the other. In these cases the game is said to be a *drawn game*, and neither of the players is victorious. It must be understood that all the various pieces are liable to be taken by the opponent's men; that is to say, any piece which bears upon any square on which there is one of the opponent's men may be moved to that square, when the piece upon it is said to be taken. There is, however, one exception to this rule; the king cannot be taken. The king may be placed in check, or he may be so situated that he cannot move without moving into check, which is contrary to the rules of the game; or he may be placed in check without being able to move from the square on which he stands without moving into check, and this latter condition constitutes checkmate, and closes the game. A short explanation of these and some other technical matters will enable the reader the better to comprehend this beautiful and interesting game.

TECHNICAL TERMS.—*In check.* The king is said to be "*in check*" when one or more of the opponent's men bears upon the square on which he stands,

and could take him on the next move if he were any other man but the king. In this condition of check the king cannot continue, he must be freed from it, and for this purpose the king must instantly move so as to be "out of check," for he must take the man by whom the check is given, if he be on the next square, and if the king in taking him does not thereby move into check, as already said; or the piece giving check may be taken by some of the men belonging to the king who is in check, or some piece must be interposed, if that be practicable, between the king and the piece who attacks him. But if the attacking piece be on the next square to the king, or if he be a knight, there can be no interposition.

CHECKMATE, it is obvious, therefore, occurs when the king is placed by any one of the opponent's pieces in check, and when by none of the expedients now mentioned he can be relieved from that state; whenever this takes place the game is over, for the king is *checkmated.*

STALEMATE consists of this, viz., the king may be so surrounded either by his own men or by the pieces of the enemy, that although not at the moment actually in check, he nevertheless cannot move at all without moving into check, which, as already stated, is inadmissible. This, however, is a condition of things that rarely occurs in a game between players of ability and skill, and it is hardly possible that it can occur at all unless most of the men are already off the board, as it is unnecessary here more fully to explain.

SMOTHERED MATE.—This term is intended to express the checkmate given to a king by the move of one of his adversary's men, which is inevitable in consequence of the king's being too closely surrounded on all sides by his own men. The term is not much used, as the occasion does not often occur. No player of sufficient ability, indeed, will permit his king to be in a position of so much peril.

ODDS.—This expresses some particular advantage which a stronger player gives to a weaker, so as to render the contest less unequal.

GAMBIT.—This word denotes the sacrifice of a pawn in an early stage of the game.

EN PRISE is a term applied to a piece when it is in danger of being taken by another unless removed to a place of safety or otherwise secured.

WINNING THE EXCHANGE.—It not unfrequently happens in the game that one of the players is under the necessity of making an exchange of men; that is to say, he may be able with a pawn to take his adversary's bishop, knight, or other more important piece, the adversary of course taking the pawn immediately afterwards. In this case, a bishop, or knight, or queen, as the case may be, is gained at the loss of a piece of inferior importance, and the player who takes the superior piece is said to "*win the exchange.*"

A FORCED MOVE.—This is a move which the king or any other piece *must* make when attacked.

COUNTER ATTACK.—This is a move made to repel or counteract the attack of an opponent by causing him to defend himself.

CASTLING.—This is a peculiar move, which can be made by either or both of the kings only once in the same game. In order to make this move the king must still be on the square on which he was originally placed at the outset of the game. If he have moved even one step the privilege cannot be conceded to him. The move is this:—Let it be supposed that on either side of the king all the pieces which occupy the squares between him and the castle have moved, and that their squares are unoccupied; in order to "castle" the rook, a castle moves towards the king and occupies the square next to him, and he moves to the square beyond the castle, *i. e.*, to the second square from that on which he originally is placed. This move is frequently of great importance, as it enables the king to escape imminent danger, and has often the effect of rendering the machinations of an opponent entirely nugatory for a time.

Sacrifice.—This term signifies the allowing a piece to be taken without immediate compensation, but for the sake of some ulterior advantage.

False Move.—This means a move made by mistake, and which cannot legally be played.

Doubled Pawn.—When two pawns stand on the same file, that is to say, one immediately in front of the other, the front one is called the "doubled pawn."

There are a few other technical phrases which might be mentioned, but they are seldom necessary in the course of a game; indeed, several of those now enumerated are rarely used.

Laws of Chess. — Several of the rules of the game have already been referred to in what has been said; we shall therefore avoid repeating them, and give only those most important in addition.

1. The players draw for first move, after which they play alternately. 2. When one of the players gives odds he is entitled to first move. 3. If an error be committed in placing the board or the men, and four moves have been made on each side, either player is entitled to require that the game shall be completed without any correction of the error. 4. A move once made cannot be retracted. 5. If you touch a piece you are bound to play it. 6. If you make a false move your opponent may cause you to retract it, and move your king as a penalty. 7. If you touch one of your opponent's men he may compel you to take it, and if that is impossible, to move your king. 8. If in checking your opponent's king you do not utter the word "check," your opponent is not bound to notice the check. 9. Drawn games are not considered games but by agreement. 10. All matters of dispute are to be referred to a third party, whose decision shall be final. The rules relating to the moves of a pawn have been already stated, and those relating to castling, &c., &c.; but it ought to be added that when at its first step a pawn is moved two squares, passing another pawn in so doing, it may be taken by that pawn. There are a few additional rules, but they are not of much importance unless among very skilful and experienced antagonists, to whom extreme strictness may be essential.

In concluding this brief notice of this admirable game, we think it requisite to say that we have purposely refrained from presenting our readers with any of the usual diagrams of games, or any special directions as to the moves to be made in playing them, for this reason, that to a beginner it is generally both difficult and irksome to learn the game by such means. A few practical lessons will be sufficient to gain familiarity with the moves, and the general conduct of the game; after which recourse may be had to some of the more elaborate works, in which are recorded celebrated openings and games, skilfully carried out, one or two of which the reader may find it useful as well as interesting carefully to study.

The Game of Backgammon.—This game has long been deservedly popular. It is in no small degree amusing and interesting, and it affords a pleasant method of employing an evening hour, without rendering necessary the intellectual effort which is required in playing chess with an able and skilful adversary.

The Implements for Playing.—The game requires a board, dice and dice-boxes, and men or pieces thirty in number. The board consists of two parts, united by hinges in the centre, and thus capable of being closed or opened like a folio volume, which in its proportions it resembles. The interior of the board thus divided has twelve "points" at each end, six at the opposite end of each of the two divisions. These points are coloured alternately white and black, or white and red, in order to afford the players the greater facility in perceiving and counting the proper moves. The backgammon board is so well known that a minute description is unnecessary, even if it could be satisfactorily furnished without the use of a diagram or the aid of the engraver. The dice are cubes

of ivory, and on each of their six faces are dots, in number from one to six inclusive. Two of these dice are used by means of a cylindrical box, in which they are shaken by each player alternately before being thrown upon the backgammon board.

The Moves or Mode of Playing.—In order to comprehend the method of playing we shall suppose that the board is placed between the two players, with the narrower ends of the two divisions towards them. In that position each player has twelve points ranged along the side of the board next himself, six of these points white, and six of them black or red. Now there are two ace-points in the arrangement of the board, one of them in the corner at the right hand of the one player, and the other at the opposite corner at the left hand of the other player. Counting from this point, the following is the arrangement of the men at the outset of the game. On each of the ace-points exactly opposite each other are two men, two black and two white. Supposing, for brevity's sake, B to represent the player of the black men, and W the player of the white, the arrangement would be this, viz.:—2 B on point 1; 5 W on point 6; 3 W on point 8; and 5 B on point 12. On the opposite side 2 W on point 1, 5 B on point 6, 3 B on point 8, and 5 W on point 12. Now the first object of each player is to bring his men round from the opposite side into the inner table, home, or exchequer on his own side. Suppose, then, for sake of illustration, B, the player of the black men, throws the dice and has the first move; if, for example, he happen to throw two sixes, he can then play the two men who are on the first point six points onwards, and he can play two of his men from the 12th point six points also. On the other hand, if W make a similar throw before his opponent he can make the same moves; but if either player has first played, the other cannot make the same move, because the points which he might have moved his men are already occupied. Suppose B again throw his dice, and the number of dots on the one dice is *one*, and on the other *three*, in that case B plays one of his men from his sixth to his fifth point, and then covers the man so played by another played from the eighth to the fifth point. In short, whatever the throws are which B makes, he can play any of his men from the position they are in to any other point in the direction of his own inner table or exchequer. If, however, on the point to which he might otherwise play, there are two men of his adversary's, he cannot place his own man or men on the same point. He can do so, however, if the point be occupied by only one man belonging to his opponent, in which case he takes the man up and puts his own in its place. These remarks are equally applicable to either of the two players. The numbers thrown by the two dice may be reckoned either singly or together. Thus, for instance, if the numbers three and six be thrown, one man may be played over nine points; or two men may be played, one of them three points and the other six, and so in other cases. If, as already implied, there be only one man on any point to which a man of the opposite colour can be moved, that man can be taken by the man moved to that point: the man on that point is called a blot, and on being taken he is to be placed on the bar dividing the two segments of the table, and when his owner throws his dice, the man so taken must be put back into the home exchequer of the opponent, on the point indicated by the throw, if that point be unoccupied. The man so put back must again commence his journey towards the inner table on the opposite side, in accordance with the number of the dice that are thrown.

As soon as B (or W) has succeeded in bringing all his men into his own inner table, he must then proceed to take them finally out of it, and this is done by his removing the men which may happen to be on the points indicated by the dice when throwing, and the player who first succeeds in getting all his men out has the game, or wins the "hit."

If either player succeeds in getting all his men off before his opponent has taken off any, he is said to win the "gammon."

Two hits are considered equal to one gammon, and to win two games out of three is called winning the rub.

Such are the chief particulars in backgammon. A few games, however, with a correct player, will do more in the way of clearly explaining and illustrating the nature of the game than a very large amount of mere written instruction.

A Word or Two on Soaps.—Concentrated Soap.—Among the various kinds of soaps for domestic purposes one of the most useful is that which is known as the St. Mungo concentrated soap. This soap, which is manufactured by Messrs. Smith and Son, of Glasgow, is said to combine the best properties, both of soft and hard soap, without the disagreeable odour of the former of these substances. For washing purposes it is found to have most effective cleansing properties, and it acts without damaging the fabric in the slightest degree. This soap is extremely well adapted for kitchen work, for cleansing woodwork, paint, and encaustic tiles, and it has very effective powers as a disinfectant for washing bedsteads, infected clothing, and infected apartments. In order to use it, it is dissolved in boiling water, and when the clothes are steeped in the solution a great amount of labour in rubbing them is found to be saved.

Watt's Patent Sanitary Soap.—This is an excellent preparation, removing offensive smells from linens, unwholesome rooms, &c. It cleanses with singular rapidity, and requires less labour than when ordinary soap is used. The suds produced by it also deodorize the sinks and drains through which they pass.

Knight's Primrose is a well-known and favourite soap, and there are pure mineral oil soaps, used by scourers and dyers, but these are not well suited for domestic purposes.

Toilet Soaps.—These are legion. Many people prefer French soaps for toilet purposes. That which bears the name of Gellé Frères makes a most agreeable creamy lather, soft and pleasant to the skin; Rimmel also makes very excellent soaps; one called Dugong soap is said to be made with the oil of a species of whale, and is highly spoken of as rendering the skin white and soft. Cleaver's soaps have long been esteemed, particularly his honey and glycerine soaps. Where so many are good it is hard to say which soap is best, and we must leave our readers to judge for themselves.

Field's Soaps.—We, for our own part, prefer Field's united service tablet for general use; it makes a very soft creamy lather, having a most agreeable perfume, and is but little affected by being used with hard water; while for winter use, to soothe chapped skin, nothing can be more delightful than the transparent honey soap of the same makers. Messrs. Field also manufacture toilet soaps from paraffine, spermaceti, &c.

Hints on Amateur Acting.—In giving a few hints on amateur or private theatricals, we begin by supposing the case, that a number of young people are staying at a country house, at a time of the year when the early falling night narrows the range of outdoor amusements, and that the host, anxious to provide entertaining employment for his guests during the brief dark days and the long nights, has yielded to the suggestion of instituting private theatricals. In such a case the first question that arises is—How to get the splendid costume in which the actors desire to shine. People of more advanced years will probably consider the matter of costume a secondary affair, and will be more concerned to find out how the mechanical difficulties of the situation are to be surmounted,—how, in fact, to *get up* private theatricals with all the necessary paraphernalia of stage, footlights, scenery, curtain, &c. It is the purpose of this article to give a few practical hints to such of our readers as may be inte-

rested in amateur acting, with the view of lessening the difficulties which will have to be encountered.

Let us say at once that if the host in our country mansion is a man of substance, the whole of the difficulties vanish. He has simply to despatch a letter, requesting a visit from one of the theatrical costumiers in Covent Garden. The man of costumes waits on the man of money, surveys and measures the hall in which the performances are proposed to be given, returns to town and brings down the private theatricals with him in the shape of a portable bijou theatre, which he erects within the hall already alluded to. In this portable theatre everything is provided—stage, gas-fittings, scenery, &c. All trouble is taken off the hands both of host and guest. A carpenter and gas-fitter set to work, and in a day everything is ready. When the week or fortnight of performances is over the man from Covent Garden disappears as rapidly as he came.

In hiring a portable theatre and availing himself of the services of a "fitter" and his attendant mechanicians, our host will not only have avoided a world of confusion and noise, but he will have taken the best precautions against having the principal hall of his mansion damaged.

But it is not alone for the upper ten thousand of Great Britain that the "Best of Everything" is written; and there are many estimable people among our readers, who might think the amusement of private theatricals for their young friends was perhaps a little too dear a luxury, if it involved a portable theatre from London, with scientific gentlemen to superintend it. We shall therefore give a few hints to such of our readers as may be desirous, in "mounting" private theatricals, to take the burden of the labour on themselves, and shall direct attention successively to the auditorium, the stage, the curtain, the lights, the side scenes, the costumes, and the plays. Our limits allow us to devote only a very few lines to each of these heads, and we shall make use as sparingly of stage technicalities as possible, the aim and purpose of our suggestions being simply to instruct our readers how to achieve the highest amount of stage illusion at the smallest expense.

The Auditorium.—On this part of the subject only a very few words are necessary. The largest available room in the house should be selected for "the theatre." If the room be oblong, two-thirds of the space should be laid off for the accommodation of the audience, the remaining third for the stage. If there are two rooms of different sizes communicating by folding-doors the difficulty is solved at once; let the larger room be devoted to the audience, the smaller to the actors. Where there are no folding-doors, it is not necessary that a division separating the auditorium from the stage should run across the whole room. In such a case, let the small stage be erected in the middle of the room, at the lower end, and let side screens run from the sides of the proscenium to the walls, in a direction sloping from the stage outwards. By this arrangement a view of the stage will be commanded "from all parts of the house."

The Stage.—It is always an advantage that the floor of the stage should be a sloping platform, but this advantage is not worth the trouble, except when the room is very large. The proscenium of the stage must consist of an arched or square framework, for the construction of which the local carpenter had better be called into requisition. Busts or statuettes, and evergreens, and above all flowers, form a fitting decoration for the proscenium, and are available anywhere and at any time of the year. Along the front of the stage, when no platform is made use of, a strip of boarding a few inches high should be placed, and behind this the "footlights" should be ranged.

The Curtain.—The most convenient "curtain" will be found to consist of two pieces of cloth of any rich colour, and of sufficient length and

width to cover the whole front of the stage when let down. The curtain is raised by two cords running from where the two pieces of cloth meet in the centre, up to the top corners on the right and left, and working over hooks. The cords are tacked to the pieces of cloth at intervals of a foot. When elaborate scenery cannot be commanded, the curtain should be lowered at the conclusion of each scene.

The Lights.—The lights form the chief difficulty in "mounting" private theatricals. The professional costumier from Covent Garden solves the difficulty easily, by leading off a pipe from the main—gas alone being suitable for lighting purposes in private theatricals,—and by laying this pipe, furnished with burners, along the front of the stage for the footlights, and up the two sides and along the top of the stage for the "gas-wings" and "gas-battens" of the regular theatre. This arrangement is really a very simple one, the pipe being led along from the meter under the flooring—and the local gas-fitter might safely be entrusted with the construction. The contrivance for raising and lowering the gas, both on the stage and in the auditorium, is easily arranged by soldering a common stopcock in the pipes that lead to the audience department and to the stage respectively. When the performance is over, the pipe that led to the stage is cut off at the main, and the opening is closed.

The Side Scenes. — Upon the scenery of the stage nothing definite can be said. In the performance of most modern comedies very little scenery is required. If, however, the company resolve to perform pieces in which scenery to represent the walls of rooms is required, they must extemporize lofty screens, with canvas-covered frames for the doors or entrances. But on this subject it is impossible to give directions, as the completeness of this part of the arrangements will depend entirely upon the taste of the operator, and on the amount expended upon it.

The Costumes.—Costumes of all kinds may be borrowed from costumiers in town. For the performance of modern comedies the ordinary dress of society will suffice. If plays of the olden time are performed, and if the dresses required are not hired or bought from costumiers, the performers must fall back in great part, at least, upon their own ingenuity. The author has seen a Scotch professor represent with great picturesqueness the "Dey of Algiers," although the "Dey's" drapery was nothing more than *napery* or table linen, his turban being a work of art built up of a couple of towels, and his long flowing robe consisted of a large tablecloth.

The Plays.—With respect to the plays most suitable for performance at "Private Theatricals," a great deal depends on the "strength" and the numbers of the company. If an historical play is represented, care must be taken that "the army" shall consist of not less than at least two foot soldiers. The author once witnessed the play of "Leah" performed, on which occasion "the villagers" were undertaken by *one man.* When the verdict of "the villagers" respecting *Leah* was demanded, the single voice responding "We *all* condemn her," excited no little mirth among the audience.

Of all plays modern comedies may be most successfully given at private theatricals, as they call for little variety of scenery, and the costume required is that of our own every-day life. Such pieces as "Still Waters run Deep," "London Assurance," "A Regular Fix," "Boots at the Swan," and many others, may be suggested as suitable.

Those of our readers who may be desirous of acquiring more detailed information on the subject of amateur acting, are referred to "Lacey's Amateur's Guide," a capital publication, in which many particulars are given respecting this subject, which the limited space at our disposal will not admit of.

Christmas Parties.—At the joyous season of Christmas, when families generally assemble round the paternal hearth, and when the very young as well as the very old are supposed to feel the genial influence of that happy time, family parties are very common, and the amusements are of a more mixed nature—more suited to various ages, as well as more homelike and unconventional in their character, than the crowded assemblies at which many of the elder guests are wont to be found in the spring. Of late years we have borrowed the pretty German custom of having a Christmas-tree, decorated with fairies, lighted up with coloured tapers, and hung with toys and pretty presents for all members of the family. There is much pleasure in preparing these things, great excitement among the young folks at the drawing of the tickets, and still greater delight when the numbers drawn are attached to articles quite inappropriate to the drawers; when, for example, a fine young dandy draws a baby doll, or a pretty young lady a smoking cap or cigar-case; when grandpapa draws a lady's apron, or grandmamma a pair of skates. But these things generally come right in the end, and an exchange of gifts is sure to satisfy every one.

Ribbon Jewellery.—We lately saw some very pretty things, suitable for a Christmas-tree, manufactured by Mr. Stevens, a ribbon weaver of Coventry. Some are book-markers, woven to represent a photograph, on a rich white ribbon about three inches wide, and a verse or two illustrative of the subject is woven in gold letters underneath. Others are in imitation of a leaf from an illuminated missal, very beautifully worked in rich colours. The same manufacturer has also invented a sort of ribbon jewellery, which has the appearance of the Florentine mosaics, and which are pretty and inexpensive ornaments for a Christmas-tree, and have certainly their novelty to recommend them. The various puzzles and scientific toys now so frequently invented, are amusing presents, and the German wood-carving in imitation of leather is extremely tasteful. The match-boxes, card and cigar cases, purses, &c., made of this apparent leather are useful and lasting as well as pretty.

Charades for a Christmas party are very easily managed where there is a large party of young people in a country house, and the rehearsals are often productive of more amusement than the actual performance. The same remarks will apply to getting them up, that we gave about private theatricals (see page 309).

Tableaux Vivants are also amusing, and not difficult to arrange where there are rooms having a door of communication between them, or with folding-doors. The open space must have a curtain, or pair of curtains, that can be drawn at the sides like window-curtains; the drapery adds to the effect of the tableaux. Behind these curtains stretch common coarse green tarlatan, doubled, to temper the light, which ought to come from the side; and behind the figures put a large folding-screen, covered with something dark, to give the effect of the background of a picture. The scene chosen ought to be one tolerably easy to be guessed by the spectators. The balcony scene in "Romeo and Juliet," the witches in "Macbeth," the trial scene in the "Merchant of Venice," &c., are effective as tableaux. If the party are rather juvenile, a scene from "Sandford and Merton," "Robinson Crusoe," or the scene, "King Alfred and the Cowherd's Wife," from the History of England, might be chosen, bearing in mind that it is easier to manage a scene with few figures. Having selected the persons who are to form the living picture, they should be grouped (in costumes suitable to the persons they represent) exactly as the scene would appear if it were a picture; the only difficulty is to keep perfectly still, and to command the countenance. A little practice will make this tolerably easy, and should any little *contretemps* happen, it will provoke a laugh, more

amusing to the spectators, perhaps, than to the unlucky performer.

A Christmas party generally ends with a dance. Few dances are prettier than the cotillon, with which our Parisian neighbours generally end their entertainments, and which is very popular with young people.

The Cotillon.—The young lady of the house should select a gentleman who is a good dancer, and who has had some experience in the figures, and arrange with him the order in which they are to be danced; and it is well to have all the things necessary in the room before the dance begins. These are—a hand looking-glass, a basket containing as many different rosettes of ribbon as there are ladies, and one with exactly the same number of counterparts for the gentlemen, a basket of flowers, a nightcap, some coloured crackers, some scent pistols for a duel, and eau de Cologne to replenish them, ribbon reins and whip, and a large screen. These articles may of course be varied, and a little invention often leads to a great success. It is usual to begin with the—

Looking-glass.—A lady is seated on a chair in the middle of the room, holding a hand-glass; all the gentlemen come dancing up behind her, one after another, and look into the glass, which is held so as to enable the lady to see the reflection of each face as it presents itself; from these she makes a selection of one as her partner, and, rising, places the glass on the chair, takes a turn round the room with him in waltz step, and then resumes her seat in the circle, leaving that in the centre of the room for the next lady.

The Rosette.—The leading lady hands round a basket containing the rosettes for the gentlemen, and the gentleman her partner hands theirs to the ladies; each gentleman seeks out the lady who has drawn the counterpart of his rosette and dances round the room with her.

The Four in Hand.—This figure is a pretty one; the gentleman leading takes four ladies, and the lady four gentlemen, and harnesses them with the ribbon reins. At a given signal all stop, and the ladies and gentlemen who have been acting the part of horses dance together. This is repeated several times, till all or most of the company have taken part in it.

The Duel.—In the "duel" the lady is placed in the middle of the circle, armed with one of the scent pistols (procurable at any perfumer's for a shilling); her "second" holds eau de Cologne to recharge it; as her victims are brought up she takes aim at their hearts till the favoured one comes, when she fires in the air, accepting him as her partner, while the "second" takes one of the previous victims.

The Bonbons.—Each lady takes one of the crackers, and going up to a gentleman, asks him to guess the colour of the bonbon it contains; he pulls the cracker with her, and if his guess be correct, they dance together.

"La Fleur."—A flower is given to every dancer, and the ladies first go round, and each pins hers to the coat of the gentleman she wishes to dance with; then they all rise, and waltz round the room once, after which the *cavaliers* make selection of their partners by presenting the flower.

The Nightcap.—The leading lady takes the nightcap, and seating herself in the centre of the room, the gentlemen come one by one and kneel before her; she decorates the object of her preference with the nightcap, which creates much amusement, and they dance together.

The Cushion Figure.—This is probably the best known of all the figures. A lady sits in the middle of the room, with a sofa cushion laid on the ground before her; the gentlemen all come up each in his turn, and endeavour to kneel on it, but she draws away the cushion with her feet as each one is kneeling down, causing him to come down on his knees on the floor, until she chooses one as her partner, when she does not remove the cushion, but allows him to kneel on it, then getting up herself, she dances off with him,

leaving the chair and cushion for her successor.

"The Screen."—In the middle of the room is placed a large screen, behind which the ladies hide, each putting out one hand; the gentlemen come up, and each having taken a hand, and correctly guessing to whom it belongs, dances with its owner. After the first figure, the order in which the subsequent figures are danced is quite immaterial; and when as many have been gone through as the company desire, the good old English dance of "Sir Roger de Coverley" will be found an excellent "wind-up" for a family Christmas party.

Parrots, and how to Keep them.—Under the general title of parrots, are usually comprehended a great number of foreign climbing birds, most of them of very gorgeous plumage, and having the peculiarity of being, if not the only imitators of the human voice among the lower animals, at least the most perfect mimics of all that passes around them.

The largest and most magnificent in colour of these birds are—

The Macaws.—Of these there are two varieties, the red and blue, and the yellow and blue macaws. They are both natives of South America, and if taken very young they can be taught to talk well; but they are rather intractable birds, although they will become very tame and attached, like all the parrot tribe, to one person—generally the one who feeds them.

Cockatoos are the next in size to macaws. They are white, with a tuft or crest of lemon-coloured feathers on their heads, which they can raise at pleasure. The largest variety has a rose-coloured tinge and a reddish crest. These birds are very easily tamed, but do not talk well; they are hardy and mild, both in appearance and disposition.

The African or Grey Parrot.—The most sober in colour, the most docile and clever in learning, and by many degrees the best talker, is this, the most common of parrots. The food and treatment of this bird may therefore be taken as an example for all others.

The Cage.—The first requisite for all parrots is a strong roomy cage. The "Indestructible Cage," made of corrugated wire, with perches of lignum vitæ, is the best, as they are most destructive birds, and delight in mischief. If it be possible to find a loose wire or a weak spot in the cage, it is worked upon with beak and claws till it is quite destroyed. Macaws and cockatoos are chained to a perch by the leg, and two little tins, one containing food, the other water, are fastened to the perch, and a large flat tin underneath contains gravel, which is indispensable to their health. All parrots must be kept in a warm room during the winter; they are natives of the tropics, and in this climate are extremely susceptible of cold, and should be carefully guarded from draughts, which often produce asthma, of which disease a large proportion of parrots in confinement, die; at the same time they require a good deal of fresh air and water, both to drink and bathe in. A parrot ought to have a bath, at least once a week in summer, and if the bird will not bathe himself, he should have tepid water poured over him from a watering-pot; he should then be set in the sun or before a fire to dry, and great care must be taken that the cage is perfectly dry. Parrots are subject to gout, and sometimes lose their toes from this disease, which is brought on by damp.

The Food of Parrots.—Wild parrots live on grain, fruit, and nuts of various kinds; the food of the tame bird is much the same,—Indian corn, boiled and allowed to become cold, and canary seed. They are very fond of hemp seed; this last is, however, too heating for general use. Ripe fruit, and nuts of any kind, they may have in moderation; a bit of dry mealy potato, a crust of bread or toast, is also a great favourite with some; and a little white bread, soaked in fresh milk with some sugar, should be given once a day, just as much as the bird will

eat at one time. If the food is allowed to remain in the cage it will get sour, and it is then most prejudicial; in fact, parrots are like children, some prefer one thing and some another. But one rule must be scrupulously observed—never give them *meat*, no matter how small the quantity, it is always hurtful; and, indeed, butter or grease of any kind is very objectionable. With ordinary care these birds live to a great age, and they are so amusing, and often so affectionate, that it is a sad affair to lose one by carelessness.

To teach a Parrot to speak.—The quickest way is to send the bird, if possible, where there is another parrot who can speak. They should be placed near enough to hear, but not see each other, and the one will soon imitate the other. A good way is to speak to the bird at night; just when his cage has been covered over (which must always be done with a woollen rug in winter) repeat over several times in the same tone the sentence you wish him to learn. He may not appear to notice at first, but some day, quite unexpectedly, he will repeat the sentence exactly in the same tone that he has heard it. He should at once be rewarded with a bit of sugar, or fruit, or any little dainty that he is fond of. They are very quick at understanding that rewards are given for obedience. We have had a grey parrot for many years; he is now fully sixteen years old; his plumage is beautiful and his health most excellent, and he is a most amusing and clever bird; he speaks exceedingly plainly, and it is quite easy to teach him a new sentence, or even to make him repeat words and whistles when desired. He knows that he will be rewarded if he does what he is told, and be scolded if he is disobedient. Never allow a parrot to be startled or teased, or permit it to be fed indiscriminately by visitors. Keep the cage extremely clean; let it be wiped out and fresh sand given every day. Some birds drink very little, but they should always be able to get a drink of fresh water if they wish. It is also a good plan to let a small quantity of canary seed be in the seed can. If a bird is left to the care of a servant during absence, it is possible that the morning bread and milk may be forgotten, and the seed will thus prevent the bird being starved.

Diseases of Parrots.—Most of the diseases of these birds arise from want of care; they either get improper food or they catch cold. For the former a change of food and a few chilis will be found beneficial, and for the latter, a great degree of heat as well as stimulating food is the best cure. If a parrot pulls out his feathers, give him a green capsicum, and syringe the bird with warm salt and water for a few days. A rusty nail in the water-pan is often very efficacious in cases of weak digestion.

Parrot Guide.—The best guide we know for a parrot-fancier is a small pamphlet called "The Parrot-keeper's Guide," published by Dean & Son, London, in which will be found descriptions of the various kinds of parrots, the food and habits of each, and general directions for feeding and keeping them in health.

Maxims for Young Housekeepers.—1. Always endeavour to get a personal character of a servant, when hiring, from her former mistress; you are thus more likely to ascertain the exact truth than from a written character. Four questions are necessary to be put on these occasions — as to honesty, sobriety, cleanliness, and temper. Should the answers not be fully satisfactory, you had better not engage the servant.

2. Always treat your servants with kindness, recollecting that they have feelings to be hurt as well as every one else. Never allow familiarity; endeavour to let them have every reasonable indulgence; and contrive that they shall have the opportunity of attending a place of worship on Sunday if they choose to do so.

3. It is frequently inconvenient to have a stated day as a holiday, but when a servant wishes to go out shopping, or to visit her friends, if it is

possible, let her go; but make it a rule that no servant shall leave the house, even for a quarter of an hour, without permission.

4. No visitor should be allowed in the kitchen without leave being first obtained. The mistress should be satisfied of the respectability of all persons admitted into her house. Many robberies take place by means of giddy servant girls admitting people of whom they know little or nothing into their masters' houses.

5. Servants' wages should be paid regularly every quarter. It is a good plan to keep a book in which the amount to be paid to each yearly is entered below her name, and payments made should be noted and signed by the servant.

6. When hiring a servant be most particular in explaining her duties, and the allowances (if any) you make to her; also cause her fully to understand the rules of the house with respect to hours, the meals, and the duties of the other servants, &c.

7. Orders should be given to the cook directly after breakfast for the daily meals, and all servants should at this time ask for what they require from the store-room,—as, for instance, soap, candles, &c. If there are many in family the cook has much to do and to think of. In this case it is a good plan to write out a bill of fare for every day's dinner, just the same as for a special dinner party.

8. An inventory book should be kept containing a list of all household furniture, linen, and plate. At certain fixed times it should be gone over, and all additions or subtractions noted in it.

9. Servants ought *never* to be allowed to conceal breakages. It should be made an imperative rule to mention them, however trifling, at once to the mistress.

10. If your establishment is a large one, the upper housemaid should have charge of the bed and table linen. In small households the mistress herself undertakes this duty. The tablecloths and napkins should be examined carefully before being sent to the laundress, for stains of wine or fruit, which are more easily extracted before being washed. All small holes and worn places ought then to be darned.

11. Sheets should not be worn till they are in holes, but should be turned, sides to the middle, when they are becoming thin, by which means they will last much longer than if not turned.

12. Kitchen cloths should be looked to occasionally and mended. A certain number should be given out to each servant every week, according to the work they have to do.

13. Every housekeeper should have in her store-room, a box containing a few common carpenter's tools, such as a hammer, awl, screwdriver, two pairs of pincers, a pair of pliers, ditto of gas pliers, a glue-pot, small saw, file, and chisel, or one of those recently invented hammers, that are a perfect *multum in parvo*, being hammer and claw, pincers, awl, and screwdriver in one; she should also keep a store of large and small nails, screws, hooks, curtain rings and hooks, tacks, &c.; these things are always being needed, and many little jobs can be done without the aid of a carpenter if you have the materials at hand.

14. Some member of the family should be deputed to see, the last thing at night, that the house is properly fastened up, the gas turned off, the fires secure, and all lights put out.

Maxims for a Housemaid.—1. Always adopt a regular system in your work, and endeavour to arrange it so that the particular portion for each day shall be completed before one o'clock if possible. The following table may serve as a guide:—

Monday.—Wash your own fine things, and those belonging to your mistress.

Tuesday.—Clean the attics and landing.

Wednesday.—Clean bedrooms and landing on second floor.

Thursday.—Clean drawing-room and landing on first floor.

Friday.—Clean breakfast-room, wash sides of stairs, and polish furniture on alternate weeks.

Saturday.—Clean plate.

2. It is the duty of the housemaid to collect the dirty clothes for the wash (generally on Monday mornings), and sort each article in heaps ready to count over, when the mistress comes to put them down in the washing book. When they come from the wash, they should be counted again to see that they are right. They should then be aired, and each person's things taken to his room.

3. Never neglect to keep all pails, &c., used for emptying slops, perfectly sweet and clean; they should be scalded every day, and have some disinfecting fluid put into them once a week, and this should also be poured down all traps connected with a bath-room.

4. The housemaid should knock at all bedroom doors before attempting to enter. She ought to be punctual in the morning in bringing hot water, gentlemen's boots, and letting the hours be known when she brings the water; also telling visitors the usual time for breakfast.

5. When breakfast is ready, the housemaid should go to the bedrooms, open wide the windows, and strip the clothes from the beds; they should not be made until an hour after they have been exposed to the air.

6. Beds should be made with clean hands; a clean apron should also be put on.

7. Brooms and dusters should not be used when dirty. A supply should be provided for all purposes, and each should be kept for its special use.

8. Care should be taken not to drop lucifers about. The same with coals and cinders. Lucifers thould never be struck on the wall.

9. Gas or lamps should be lighted, the house shut up, and beds turned down as soon as it becomes dusk.

10. Hot water should be taken into the bedrooms before the cloth is laid for dinner, and again at bedtime.

11. Never clean a drawing-room without folding up the table-covers, antimacassars, &c.; and cover over the furniture with sheets, fold the curtains, having shaken them well first, then strew tea-leaves over the carpet and brush it well.

12. Grates should never be cleaned without turning up the rug and laying down a hearth-cloth.

13. Where there are polished steel grates, the register should always be kept down when the fire is not lighted. Remember to open the register before lighting the fire.

14. Always use gloves when cleaning grates or doing any other dirty work.

15. When visitors come to stay in the house, their boxes should be at once taken to their room, the cords taken off, and their straps unfastened. The housemaid should see that there are soap, night-lights, and lucifers in the room.

16. Visitors should not be kept standing in the hall, but should be shown into a room at once.

This rule is to be observed when the master or mistress is at home; when they are out, if strangers call, it is not advisable to leave them in a room by themselves.

17. If strangers call for parcels, nothing should be given to them without previous instruction. The same if parcels or messages are brought for which payment is demanded.

18. Letters, newspapers, and small parcels should be handed on a waiter.

19. Doors should be shut by the handle. Nothing is more untidy than finger-marks on the paint of a door.

20. The housemaid should count the plate, to see that it is all right before putting it in the plate-basket at night.

21. Workmen should not be allowed to go up-stairs in thick, dirty shoes. Cloths should be laid down over carpets where they are at work. Many tradespeople supply their men with slippers to put on when engaged at indoor work. The housemaid should see that the workmen use them.

Crochet, No. 1.—This kind of fancy work is so well known and so popular, that it scarcely requires any description; it is also so simple, that those who understand the stitches can

work a pattern from looking at a piece of it. It is now a common practice to give, in those magazines and newspapers especially devoted to feminine occupations, written directions for patterns, without diagrams; but many persons who can work crochet from sight very nicely, cannot work at all from these receipts, from the difficulty they find in the diversity of names given to the stitches. To assist those of our readers, therefore, who may not have easy access to some of the elaborate and expensive works that have been written on this subject, we propose to give a short and simple explanation of the most common terms used in crochet, which will enable them to work any pattern from a written receipt.

The Implements.—These are bone and steel hooks of various sizes; the bone hooks are used for wool work, one which has a button on the end is used for crochet à tricoter, the steel hooks are suitable for cotton and silk; they are fitted into a wooden or bone handle, and one, called the *Penelope* hook, is said to have peculiar advantages in being more securely fastened in the handle, and firmer in use than any other. The hook must in all cases be very smooth and highly polished.

The Cotton must always be of the best. Evans' Boar's head is very excellent cotton. Arderne's is also a favourite, but most of the patterns where a number is given, refer to Evans' cotton; therefore the sizes are more likely to be correct if taken according to this cotton; for couvrettes and counterpanes, use knitting-cotton. The beauty of crochet consists in its evenness and elasticity; the hook and cotton must therefore be of a size to suit each other, or the work cannot be even.

To Begin a Piece of Crochet.—The first thing to be done is to make a foundation: make a loop in the cotton, put the hook through this, catch the cotton between the loop and the reel with the hook, and draw it through the loop which you first made, leave the second loop on the hook; repeat this till the chain is long enough for your pattern.

Slip Stitch.—Having formed a foundation, fasten the thread at the beginning of the row, put the hook into the back of the first stitch and draw the thread through; put the hook into the back of the second stitch and draw the thread at once through it and the loop already on the hook; repeat to end of row.

Single Crochet.—Put the hook as above into the back of the first foundation stitch, form a loop by drawing the thread through the stitch, leave this loop on the hook and make a second in the next foundation stitch, then draw the thread through both loops; repeat to end of row.

Double Crochet.—Put the hook into the first stitch of the foundation chain: draw the thread through in a loose loop; then put the thread round the hook before putting it into the second stitch through which you draw a loop. There will then be three loops on the hook; draw the thread through two of these, then through the one just made and the first one.

Treble Crochet is worked in the same way, only putting the thread round the hook twice instead of once. In Long Treble put the thread three times round the hook before pulling it into the stitch.

Ribbed Crochet is worked backwards and forwards on both right and wrong sides; work always the back part of the stitch, and make a single chain stitch at the end of each row, to prevent the edge having a puckered appearance.

Square Crochet is the way in which patterns of antimacassars, &c., are worked from printed patterns, resembling Berlin wool patterns. The squares are either open or close; open is used for the ground work, close for the pattern upon it. An open square consists of one double crochet and two chain stitches, leaving two on the line below before taking the next stitch. A close square has three double stitches close together, leaving no stitch underneath. A pattern to be worked in this style must be carefully counted before commencing. It may contain any

number of stitches that can be divided by three and leave one stitch over.

Purling consists in making an odd number of chain stitches, and then putting the hook back into the second stitch of this chain, forming an imitation of that edge of lace which is called pearl or purl edging. These are the principal stitches, with their names, used in crochet. There are, however, modifications of each, which can only be learned from a work entirely devoted to the subject. We hope in a future page to give a few more remarks on this favourite work, and to add one or two receipts for patterns in illustration of our meaning.

Punctuation. — This word, which is derived from the Latin noun signifying a point, denotes the art of subdividing discourses either written or spoken, into clauses, sentences, and parts, according to certain rules.

I. The History of Punctuation. —The art of punctuation is said to have been entirely unknown to the ancients. This, however, is an error. It is true that some of the most ancient manuscripts—such as, for example, the Alexandrian MS. in the British Museum, —are written without any distinction of words or of sentences; but it is stated by Suidas that some points were in use so far back as 380 B.C., and from Aristotle, as well as from Cicero and Seneca, we learn that the art of punctuation was known and practised by the Greeks and the Romans. It is extremely probable, indeed, from the very nature of thought and language, that some species of pauses, and methods of subdividing sentences, whether in speaking or in writing, must have been coeval with the practice of communicating ideas by sounds or by symbols. Whatever may be said of the ancient practice, however, it is certain that several of the points with which we are now familar, were not devised so long as manuscript alone was the mode of communicating knowledge, and that it was long subsequent to the discovery of the art of printing that an accurate mode of punctuation began to be adopted. The earliest printed books had no stops of any kind, with the exception of a perpendicular line or dash, which served to divide the parts of a sentence. This afterwards gave place to the comma; the colon appears to have been introduced in 1580, and the semicolon appeared some twenty years afterwards, although it was at a much earlier time used as a mark of abbreviation.

II. Names of the Principal Points. —The points or marks by which this subdivision is effected are the following:—the comma (,), the semicolon (;), the colon(:), and the period or full stop(.).

III. Uses of these Points.—The *comma* serves to distinguish one noun or one verb from another, or to separate such parts of a sentence as are not necessarily united together; the *semicolon* is employed to suspend or sustain the sentence for the addition of some new clause related to it; the *colon* indicates that the sentence is not completed, and notifies the addition of some supernumerary idea or statement having a more or less remote connection with the sentence; the *period* or *full stop* terminates the sentence by completing the statements it contains.

IV. The Length of Time given to each Point.—Of the four points above mentioned the first may be presumed to have a pause of one second assigned to it; and the three points following the comma to have two, three, and four times the period of its duration. The rule, however, points out strictly only the *relative time* attributed to each of the four points: the actual duration of each pause must necessarily depend on the degree of rapidity with which the composition is read or spoken.

V. Points of Secondary Importance.—These are the notes of interrogation (?) and admiration (!), each of which is equivalent in duration to the full stop, and generally occupies the same place in a sentence; the first indicates a question on the part of the writer or speaker, and the second an emotion of admiration, surprise, delight, and so forth; the apostrophe (') indicates the omission of one or more letters from a word

written or spoken; the hyphen (-) is employed to unite two words into one; and the parenthesis ( ) serves to introduce into a sentence a clause not strictly belonging to it.

VI. Other points, however, are used, such as the asterisk (*), &c., the object of which is to direct the attention of the reader from the text to such notes on the margin or at the foot of the page as the author deems requisite to the explanation of his principal topic.

VII. Illustrations of Punctuation.—By accuracy in punctuation the meaning of a writer is clearly defined, and even if the composition is inaccurate, the proper use of points will much contribute to remedy the defect. On the other hand, if the composition be clear and distinct, in consequence of the clauses or parts of the sentences occupying their proper places, the punctuation is much less requisite to the bringing out of the author's meaning; but when the composition itself be faulty, and there is either no punctuation, or the points are placed erroneously, the results are frequently absurd and ludicrous in the extreme. An example or two may here be furnished:—

The editor of a newspaper, in introducing to public notice a poem composed by a friend of his own, makes the following amazing statement:—"The poem published this week was composed by an esteemed friend who has lain in his grave many years for his own amusement." This advertisement does not furnish any very striking evidence of the editor's skill in the art of composition; but if the last few words of it were followed immediately by a comma, and printed after the word "composed," a great improvement would result, and the absurdity of the statement would be at once removed.

The "leading journal" sometimes contains astonishing advertisements; here is one:—"Wanted a man to look after a horse with a religious turn of mind." Possibly the person who inserted this advertisement may have been a wag, and knowing that some animals occasionally assume a religious attitude, as, for instance, the *mantis religiosa*, he really meant to state that the horse required to be looked after because he had a habit of "coming down" on his knees. If, however, the advertiser did not intend any profane jest, then it is certain that the last six words ought to have followed the word "man," and should themselves be followed by a comma, to place the meaning beyond all doubt. The wife of a sailor about to make a long voyage, sent to the minister of the congregation to which she belonged, the following memorandum, of which the punctuation and the spelling were equally apt to mislead the hearers:—"A husband, going to see his wife, desires the prayers of his congregation." It appears that the clergyman, not having perused this intimation before reading it in public, read it as it is given above, to the astonishment of the people. Now a slight alteration in the spelling of the word "see," and in the position of a comma, would have removed all question as to the poor woman's meaning, and made the sentence read thus, "A husband going to sea, his wife desires the prayers of the congregation."

One more illustration may be added. When King William landed at Torbay, on November 5, 1688, among those who welcomed him was a man named John Duke, who possessed the property of Otterton. On being presented to the king, his Majesty asked him to state his name, on which, with some timidity and hesitation, he replied, "John, Duke of Otterton." The king, immediately taking up a list of the English nobility and examining it, declared that he did not see in it the name of any such nobleman. The mistake, however, was speedily rectified by placing a comma or pause not after the word "John," but immediately after the word "Duke."

These and numerous instances that might be cited, serve to illustrate the subject to which we have briefly referred, by showing how much influence punctuation may exercise in modifying the meaning of a sentence.

The Old Year and the New.

THE simple annual feast is spread—
Sober the guests and few—
That here with grave but cordial cheer
Have met to "see out" the Old Year,
And welcome in the New.

The Old Year dies—dies in our hearts—
Dies on the stormful sea—
Dies on the wintry moors that gleam—
Dies 'mong the flying clouds that seem
His passing skirts to be.

And here, in presence of the dead,
Let all our quarrels die;
We're parting with the Past, we reach
Hands to the Future, and on each
Fate's shadows deeper lie.

Then fill the "Cup o' kindness" high,
And hark! from the church tower,
Time, with his iron hammer, slow,
And with a sigh 'twixt every blow,
Beats out the midnight hour.

"A Good New Year, and happiness
To you, and you, and you!"
We kiss the girls—strong hands we grasp—
The eyes grow tender with the clasp,
Because the hearts are true.

Now, ere the "First-foot's"* at the door,
And while the 'wildered bells
Ring in the year with lawless chimes,
Mingled of sad and merry rhymes,
Of greetings and farewells,

A health to the absent let us drink,
With hearty three-times-three;
E'en now we know, with waving hands,
They waft us kisses from far lands,
And sighs from o'er the seas.

D. MURRAY SMITH.

* In Scotland, the first person who enters a house, after the new year has come in, is called the "First-foot."

The Month of January.

"Love and joy come to you
And to your wassail too,
And God send you a happy new year,
A new year.

"And God send you a happy new year,
Our wassail-cup is made of rosemary tree
So is your beer of the best barley."

Old Gloucestershire Ballad.

The month of January is said to owe its name to Numa Pompilius, the second king of Rome, who decreed that two months should be added to the ten of which the year then consisted, and that the year should commence with the first of these months, which he named Januarius, after Janus, the double-faced deity, who presided over gates; thus Januarius became, as it were, the opening or "gate" of the year. The Saxons called January "Wolf-monath," because, about this time, the wolves, which were formerly numerous in our island, being rendered ravenous by the great scarcity of food, (the cattle being housed for winter), roamed about in herds, as they still do in parts of Russia, in search of the unwary traveller, who, in such cases, instantly met with a sad fate. In later times the Christian Saxons called January "Aefter Yule," *i. e.*, after Christmas. It is curious that we still use the Saxon names of the days of the week, and follow the custom of the Romans as to the name of the months of the year.

January is undoubtedly the coldest month in the year in the northern hemisphere. The frosts are severe and lasting, and there are usually heavy falls of snow. These are, however, very beneficial, as the snow, to a certain degree, protects the ground, and renders it ready for tillage earlier in spring; a hard black frost freezes the earth several inches deep, and although the continuance of such a frost is productive of much inconvenience to the farmer, it affords the means of several healthful amusements, such as skating, curling, sliding, and in northern Europe as well as in Canada, the still frosty air echoes with the music of the sleigh bells. The snowy roads are in

good order at this time, and nothing is more delightful than a sleigh ride, particularly by moonlight.

The Canadians, and the Americans generally, follow the French custom of visiting all their friends on the first of January, and the gay-coloured sleighs keep rushing about the streets, bearing the gentlemen to wish their fair friends a happy new year.

The English custom was formerly that the head of the house assembled his whole household on New Year's Eve, round a large bowl of spiced ale, which was called "lamb's wool," and he drank their united healths, using the old Saxon term, "Wasshael," from which this came to be called the wassail bowl. The whole family followed the example of its head, and sometimes even carried the wassail-bowl to their poorer neighbours. The only modern adaptation of this old custom is the drinking from the "loving cup" of the City of London corporation.

The Scottish custom called "first footing" has been kept up in that country till of late years, and it still lingers in some districts. After they had watched the old year out, each family had ready a sort of wassail-bowl, called "hot pint," and the gentlemen at once set off for the houses of their friends to wish them a happy new year and taste the "hot pint." The young lover fondly hoped to greet his fair lady with a kiss, and great was the merriment, when an old aunt or grandmother opened the door, in place of his "bonnie lassie."

The almost obsolete custom of presenting new year's gifts is of great antiquity. It is mentioned by several of the Roman writers. The Saxons also kept up the same custom, and the early French kings extorted money from their subjects as a new year's gift.

In the present day the Parisians give bon-bons, in beautifully ornamented boxes, to those ladies whom they wish to compliment.

Cook's Calendar for January.—Fish in season: turbot, plaice, skate, sturgeon, flounders, perch, tench, carp, whitings, smelts, lobsters, crabs, prawns, crayfish, oysters.

Meat in season: beef, veal, mutton, house lamb, pork.

Poultry in season: turkeys, fowls, capons, pullets, pigeons.

Game in season: pheasants, partridges, hares, woodcocks, snipes, rabbits.

Vegetables in season: cabbage, spinach, beetroot, celery, turnips, carrots, parsnips, shalots, lettuce, seakale, forced asparagus, and mushrooms.

Fruit in season: pears, apples, grapes, oranges, medlars, walnuts.

Gardener's Calendar for January.—Outdoor work can only be prosecuted in the absence of frost. This is a good time for draining, as the effect of it can more easily be seen during wet weather, in the rapid disappearance of the water from the surface of the ground; if the frost be not severe, hedges may be cut and mended, box edgings made, and shrubs planted out; cover tulip, hyacinth, ranunculus, and anemone beds with litter, and if the frost is severe, put hoops over the beds, and lay matting on the hoops; it is essential that the frost should be kept from the roots. All plants under glass should be sparingly watered, and have all the air that possibly can be given on mild days; examine the roots in the storehouse, either of flowers or vegetables, and instantly remove any that seem decaying. Cover celery and cauliflower plants in severe weather, continue to force rhubarb and seakale; this is easily done by covering the plant with a large flower-pot inverted, and then surround it with fresh stable litter. Make a hotbed for starting the early melons and cucumbers, for raising small salads, radishes, celery plants, early cabbages, brocoli, and cauliflower plants; as well as for forcing asparagus, which is done by putting in the roots very close together, and then covering them with about three inches of earth. A few hardy annuals may be sown in pans in the greenhouse, to be transplanted early. Carnations, calceolarias, and cinerarias should be looked to, and

not allowed to become too dry; prepare beds for the second crop of ranunculus roots; these may be planted early in February, if the weather be favourable; fumigate the conservatory, and attend generally to the indoor plants. In mild weather, early peas and beans may be sown, also radishes and carrots in a sheltered spot; but all gardening in this month depends so very much on the weather, that the gardener must exercise his own judgment as to the expediency of planting during January.

Hints on Pastry.—To make good pastry is perhaps one of the nicest operations in the culinary art. It requires much lightness and dexterity of hand, as well as practice, and also considerable expedition, as it must be made and put into the oven in the shortest possible time, or the paste will be heavy.

The paste-board and rolling-pin ought never to be used for any other purpose than making pastry, and should be perfectly clean and free from dust; if possible, a marble slab is better to use than a paste-board, particularly in warm weather. Pastry should be made in a cool place, and touched with the hands as little as possible.

Tart tins, patty-pans, and pie dishes that are to be lined with pastry, must be well buttered before the paste is put on, or it will stick to them.

A Rich Light Paste.—To one pound of flour, dried and sifted, take half a pound of good fresh butter and half a pound of lard; divide the flour into two equal portions, put one half on the paste-board, cut the butter (from which the water should be squeezed) into slices about half an inch thick; do the same with the lard; cover the slices with flour, roll them out thin with the rolling-pin and lay them aside; put the other half of the flour into a basin, work into it with a spoon a quarter of a pint of water, or enough to make the flour into a stiff dough—too wet a dough will make tough paste,—lay this upon the paste-board, and roll it out till it is half an inch thick, then lay the fourth part of the butter and lard all over it, fold it up, and roll it again; put on another fourth of the butter, and repeat the buttering and rolling till all the rolled butter is mixed in. Then cover the tart, and bake it in a brisk oven. Always handle pastry as lightly as possible, particularly after the butter has been put in.

Puff Paste.—A French receipt.—Take one pound of dry, sifted flour, and the same quantity of butter, divide the flour in two, and put one half on the paste-board. Make a hollow in the centre of it, and pour in three eggs, well beaten, with a glass of brandy. Make it up into a lump, and lay it aside; take the butter, and roll it out in the other half of the flour, then take the lump, roll it out thin, and lay in the butter in five portions; always roll the paste one way, and *from* you; let the paste lie all night in a cool place, and it will be fit to use in the morning.

A Good Paste for Fruit Tarts.—Put half a pound of dried and sifted flour into a dish, add to it the yolk of one egg, well beaten, a tablespoonful of lemon juice, with the same quantity of powdered sugar; mix it into a stiff paste, adding a little water if it is not sufficiently moist. Roll out the paste, and sprinkle flour over it; then with a knife spread over the paste three ounces of good butter, and three ounces of lard. Butter, and roll out alternately, till all the butter and lard are mixed in; then line the dishes, and bake in a hot oven.

Potato Paste.—A quarter of a pound of cold boiled potatoes, to half a pound of flour, rubbed well together, wet with very little water, and add six ounces of good lard or butter. For a sweet paste, add a tablespoonful of powdered sugar; for a meat paste, the same quantity of salt.

Lemon Pudding.—Beat well together four ounces of butter creamed, and eight ounces of sifted sugar; to these add gradually the yolks of six, and the whites of two eggs well beaten, the grated rind and the strained juice of one large or two small lemons; this last must be added by degrees, and

stirred briskly to the other ingredients. Bake the pudding in a dish lined with thin puff paste for three quarters of an hour, in a slow oven.

Dunnikier Orange Pudding.—Melt five ounces of butter, add to it while warm, five ounces of sugar, and the yolks of ten eggs beaten; mix, and beat the mixture till it is white. On the bottom of a baking tin covered with puff paste, spread orange marmalade, and pour the rest of the ingredients over. Bake in a moderate oven half an hour, turn it out, and serve. Pine-apple and apricot pudding may be made in the same way.

Vermicelli Pudding.—Boil a quarter of a pound of vermicelli in a pint of milk, with a small piece of cinnamon; when it is quite tender, add half a pint of cream, a quarter of a pound of good fresh butter melted, a quarter of a pound of powdered sugar, and the yolks of six eggs, well beaten; lay puff paste round the edge of a shallow baking dish, and just when putting in the vermicelli, add to it two ounces of lemon chips, and half a teaspoonful of ratafia; bake for three quarters of an hour.

A Super-excellent Pudding.—Cut three ounces of candied orange-peel and citron mixed, into very thin slices, melt six ounces of good fresh butter, add to it five ounces of powdered sugar, and the yolks of six eggs well beaten; make these ingredients hot, and then pour them over the peels; stir all together till nearly cold, that the peels may not all lie at the bottom. Line a baking dish with rich paste, and bake half an hour.

Chocolate Pudding.—Dissolve a quarter of an ounce of gelatine in a large breakfast cup of milk, and add to it the peel of a small lemon and nine or ten squares of chocolate grated; whisk the whites of six eggs and the yolk of one to a stiff froth, and stir it gradually into the other ingredients, pour it into a dish, put a rich puff paste round the edge, and bake it in a slow oven. Cream may be used instead of the milk, but with the latter it is very good. Time to bake, from three quarters of an hour to one hour.

Amber Pudding.—Beat well the yolks of four eggs, add half a pound of butter melted, half a pound of powdered sugar, and a little essence of lemon or ratafia to flavour it; put puff paste round the dish, and bake for half an hour.

Cheese Cakes, Almond. — Take half a pound of sweet and half an ounce of bitter almonds, blanch and pound them, but not too fine; melt one ounce of butter, add to it half a pound of sifted sugar, and the yolks of four eggs not beaten; mix all these well with the almonds, adding half a teaspoonful of essence of lemon, and the same quantity of ratafia; line cheese-cake pans with rich paste, put a dessert-spoonful of this mixture in, and bake half an hour. This quantity should make two dozen.

Cocoa-nut Cheese-Cakes. — Grate the cocoa-nut on a fine grater, weigh it, and add an equal quantity of butter, with two ounces of loaf sugar sifted, and the well-beaten yolk of an egg to every ounce of the cocoa-nut; a wineglassful of brandy, the same quantity of rose-water, and half a nutmeg. Line the pans with a rich puff paste, fill them, grate a little sugar on the top of them, and bake in a quick oven.

Lemon Cheese Cakes.—Soak a stale sponge cake in sherry, three of the ordinary twopenny sponge cakes will be enough; add to these two ounces of butter melted, four ounces of sifted sugar, and four eggs well beaten; mix and beat these ingredients well together, then add a teaspoonful of essence of lemon, and a wineglassful of lemon juice, line the pans with puff paste, and bake half an hour.

Marrow Patties. — Blanch and pound four ounces of sweet almonds, moisten them with orange-flower water; when reduced to a paste, mix in a handful of flour, a very little warm water, and the yolks of three eggs; with this paste line a number of shallow moulds, wash the pastry over with yolk of egg well beaten, and bake in a slow

oven. When done, take them out, and put into each a mixture of beef marrow, lemon-peel, and cream, laying it on about as thick as a crown piece; cover with a spoonful of white of egg whipped to a snow; strew sifted sugar over, and serve very hot.

MAIDS OF HONOUR.—Make some new milk lukewarm, then put in a spoonful of rennet, and when it has turned to curd, stir it through a cheese cloth to get rid of the whey; to half a pound of curd put six ounces of butter, four yolks of eggs, and sugar and nutmeg to taste. Mix all the ingredients well, line patty pans with puff paste, fill them with the mixture, and bake in a quick oven. The cheese-cakes may be flavoured with lemon if desired.

Parish Law.—A vestry is an assembly of the parishioners for despatching the business of the parish. It is not essential that it should be held in the church or vestry. The clergyman has a right to preside at all vestry meetings. Public notice of every vestry meeting and the purpose thereof must be given three days before the day appointed for holding it, and printed or written copies of the notice must be affixed to the principal doors of the churches or chapels. The notice must be signed by the rector, vicar, or curate, or by a churchwarden of the parish or overseer. A private parishioner has no right to publish a notice of a vestry meeting. At a vestry meeting every parishioner paying rates is entitled to a vote. If assessed for the annual rent of £50, he is entitled to give one vote for every £25 in respect of which he has been assessed, but no individual can have more than six votes. At a vestry meeting no person can vote by proxy. In cases of equality of votes, the chairman has a casting vote. Churchwardens are chosen in the first week after Easter. They are chosen by the joint consent of the minister and parishioners. If they cannot agree, one is chosen by the minister and another by the parishioners. Peers, members of Parliament, clergymen, dissenting ministers, physicians, and attorneys, and others, are exempted from serving the office of churchwarden. Churchwardens are the guardians of the church; they are trustees of money given for the benefit of the church, and must attend to repairs on the church and fences of the churchyard. No proceedings can be instituted to enforce payment of church-rates made in any parish in England or Wales. The pews in a parish church are the property of the parish; the distribution rests with the bishop of the diocese or the churchwardens as his officers. A person guilty of indecent conduct in church during divine service is liable, on conviction, to the penalty of £5 or two months' imprisonment. The churchwardens of any parish in which a dead body is cast ashore from the sea, must cause it to be interred in the parish burial ground.

Law respecting Nuisances.—Tallow-furnaces, tan-pits, pig-styes, dye-houses, &c., if erected so near dwelling-houses as to render them unfit for occupation, are held to be nuisances. A cess-pool of which the filth percolates into a neighbour's well is a nuisance, as is letting impure drainage into a neighbour's pond, so as to destroy the fish. The law will not permit a long-established decoy to be disturbed by firing off guns near it: and it is held illegal to divert waters used for turning a neighbour's mill. Any person throwing rubbish into a stream, so as to block up the channel or defile the water, is liable to prosecution. Playing games on highways and letting off fireworks within fifty feet of the highway, constitute nuisances—those doing so being liable in penalties. Persons laying rubbish on the highway are subject to penalties. If a person falls over a heap of earth or stones placed on the highway, street, or public footpath, and is thereby injured, the person who placed the obstruction is liable to the injured person in damages. A person who keeps a howling dog, or allows loud noises in his house at unusual hours, to the annoyance of a neighbour, is liable in damages. Collecting crowds of rough

and dissolute persons is punishable as a nuisance. Placing traps scented with strong-smelling baits, so as to influence the instinct of a neighbour's dog or cat, is punishable as a nuisance. Persons selling bad liquor or provisions of any kind are liable to heavy penalties. Persons suffering from nuisances may recover damages by instituting suits against the trespassers. A magistrate will at once prohibit any common nuisance. The sanitary inspector of the Local Board of Health should be consulted, and his advice adopted, in the case of neighbours refusing to apply a remedy to any nuisance which has been complained of.

Hints on Skating.—This delightful art affords the most appropriate outdoor exercise and amusement that can well be conceived for a winter day; like some other practical arts, however—swimming, for example—no amount of mere theoretical instruction will enable a person who knows nothing about it, so much as to stand with skates on upon the ice, much less to glide along its surface with the ease and grace of a skilful performer. What is required is really very simple, and is entirely of a practical kind. See that your skates are neither too large nor too small, that they fit your boot so tightly as to be immovable, and that the blades are sharp. Put them on and endeavour to stand on them on the ice. It is wonderful how speedily, and, as it were, instinctively, you will acquire the power of balancing yourself, and moving on the slippery surface. A fall or two may be unavoidable, but, like some of the evils of human life, they will be but a temporary inconvenience, bringing with them greater security as experience increases.

We have no intention of presenting our readers with an elaborate essay on the art of skating, but shall confine ourselves to a few useful hints.

I. The Skate.—Without any minute descriptions of the instrument, a remark or two as to the "iron" or blade on which the skater stands may be made. Sometimes it is made plane at the bottom, and sometimes it is fluted. In our opinion the plane surface is the better form. The height of this "iron" ought to be about an inch at the back and three-fourths of an inch in front, and the curve in the front should not project too far, but merely so as to clear the toe well. As already hinted, the skate ought to fit tightly and accurately, and to this end it ought to be furnished with a screw, to be screwed into the heel of the boot, and a couple of pins in the sole of the boot; these will go far to render the skate perfectly steady when properly strapped to the boot.

II. The First Attempts.—Presuming the skate securely fixed, and the boot also tightly laced, the learner's first attempt must be to place himself in a perpendicular attitude on the ice. It may be said that his first *step* is to *stand*. The back of a chair placed before him, a stick shod with an iron spike, or the friendly hand of an experienced acquaintance, will be found in this primary effort of great use. When some tolerable degree of steadiness is acquired, some attempt at locomotion may be made, and in so adventurous an effort, especially if made by any of our fair readers, a vigorous arm to lean upon on each side, will be found a great comfort, till some degree of confidence is acquired, and will act the part which cork floats or bladders do toward the timid swimmer who suddenly finds himself "out of his depth."

General Directions.—I. If the learner intends to begin with his right foot, he ought to keep the left knee straight and firm, bending it only a little at the instant of striking out, and *vice versa* so acting with the left foot and right knee. II. The body ought to be slightly inclined forwards, of course, so as—in scientific language—to "keep the centre of gravity over the base," the learner taking advantage of the friendly support on each side as he strikes out, and if such support is unattainable, making the best use he can of his stick, and submitting with his best grace to the inevitable neces-

sity of a sudden obedience to the law of gravitation in the shape of a fall. III. The skater ought never to look at his feet, nor at the ice near him, as by doing so, he is very apt to increase the number of his exploits in the way of tumbling, for it is unquestionable that he can keep his balance better by looking straight forwards than by fixing his attention on the movements of his feet; this, however, he will soon find by experience. It is remarkable that this rule is exemplified in intellectual and moral affairs; we are more likely to attain a successful result by giving our attention rather to the ultimate object in view, although it be remote, than by confining our prospect to each minute and, perhaps, difficult step which leads to it. IV. The learner, while keeping his head up, ought to advance his body a little forwards. By this means he will avoid a backward fall, which is often a serious mischance. V. The learner's face ought always to be turned in the direction to be followed. VI. All movements in skating ought to be smooth and graceful, and quite free from jerking and awkward gestures. VII. The act of stopping is performed by slightly bending the knees, bringing the heels together and bearing upon them; it may also be accomplished by turning short to the right or left.

It is only requisite further to add that the method of skating in certain figures is not difficult to acquire when proficiency in the art is attained; to furnish learners with precepts for those performances on the ice, which imply a large amount of experience, is hardly requisite, for the art of moving over the ice in figures is itself learnt in the act of learning to skate.

The Game of Curling.—This celebrated game, which is peculiar to Scotland, but has been introduced into Canada and other places, is analogous to that of bowls. It is, however, only played upon the ice, and from the peculiarities of the game itself, the exhilarating character of the weather adapted to it, the invigorating exercise it requires, and the cheerful and healthful amusement it yields, it may be safely declared to be one of the best and most interesting out-door games with which we are acquainted. It possesses the merit, too, of being the most social, friendly, and least exclusive of pastimes. In the country in which it may be said to be indigenous, and where it is played with great enthusiasm, persons of the highest social position cordially unite in the game with those of the humblest rank, provided they are keen and skilful players. As an illustration of this—and many such might be given—it may be mentioned that at the great match played between the late Duke of Hamilton and Macdougall of Castlesemple, the Duke, in selecting the seven players on his side, chose as one of them, *Tam Pate*, whose business was what is known in Scotland as that of a "cadger," or hawker of fish, and who possessed what neither wealth nor rank could give him, marvellous skill in the game. The Duke appointed his humble acquaintance leader or "skipper" of his party, and so keenly was the contest carried on, that before the last stone was played both sides were equal. The last had to be played by Tam, and the shot required so much skill and dexterity that it was thought that even the redoubtable cadger would find it impracticable; but Tam with the greatest coolness and with unerring precision, took the shot and gained the victory for the Duke. The game of curling is of great antiquity; it is spoken of in a book printed in 1600, and there can be no doubt of its having been well known and popular in Scotland for many centuries. About the year 1840 the Caledonian Curling Club was instituted, and, at a meeting in Edinburgh, rules were issued, as the game, up to that period, had not been played in a uniform manner. The regularity thus secured, gave a great impetus to the game, which received additional distinction from the circumstance, that in 1842 Prince Albert became the patron of the club, and her Majesty the Queen conferred on it the title of "Royal."

Implements of the Game.—These are the "curling stones;" they are spherical in form, flattened above and below, with a breadth of about twice their thickness; the angles are rounded off, the upper and under surfaces parallel, and the under surface or "sole" extremely smooth; into the centre or upper surface is fixed the handle, by means of which the player swings the stone in the act of making a "shot." The stones are made of whinstone or granite, often beautifully polished; the nodules of whinstone called "yolks" are considered best adapted to the purpose by reason of their hardness. The stones are usually from thirty pounds to sixty pounds in weight. In addition to the stones each player must be provided with a "besom" or broom, for the purpose of sweeping the ice, and prevent the running of the stones being impeded.

Technical Terms used in the Game.—1. *The Rink.*—This is the space in which the game is carried on, which may be from thirty to fifty yards in length, and ten or twelve feet in breadth. The ice within that space must be as smooth and free from flaws as possible. The term "rink" is likewise applied to all the players who are engaged in the game played. 2. *The Tee.*—This is a hole or mark at each end of the rink. 3. *Broughs.*—These are two circles of different diameters drawn round the tee, so that the distance of the stones from the tee may be calculated by sight, actual measurement not being allowed till the play at each end is finished. 4. *A Hog's score.*—This is a score drawn across the rink at each end, and distant from the tee about a sixth part of the length of the rink. 5. *The Lead.*—A term applied to the person considered the best player, who arranges the order of playing. 6. *The Driver* is a term applied to the person last in order, who gives directions to all his party. 7. *The Skippers* are those who have the exclusive direction and regulation of the game. 8. *Wicking* is the act of striking away the winning stone which lies nearest to the tee.

Rules of the Game.—1. The length of the rink shall in general be forty-two yards; any deviation from this must be regulated by the consent of the parties, and when a game is begun, no change is to be made in the dimensions of the rink unless by the concurrence of the majority. 2. The rink shall be changed in all cases when, from the springing of water the majority of the players cannot "make up," and neither party shall be entitled to object, as all contests must be decided on the fair and equitable principles of science and not of strength. 3. The number of shots in a game shall be twenty-one, unless otherwise mutually decided on. 4. The hog's score is to be one-sixth part of the length of the rink from the tee. 5. Every rink is to be composed of four players aside, unless it is to be otherwise mutually agreed upon. The same individual or party shall not play two stones in succession, and every player shall deliver both his stones alternately with an opponent. 6. Parties shall decide by cuts who are to "fill the ice" at the first end; after which the winning party of the last end or game of the day's play shall do so. No stones shall count which do not lie within seven feet of the tee, unless it be otherwise mutually settled. In cases in which each party has a stone equally near the tee, neither shall be counted, and the winning party of the previous end shall again fill the ice. Measurements shall be taken from the middle of the tee to that part of the stone which is nearest to it. 7. Each player shall place his feet in such a manner as that in delivering his stone he shall bring it over the tee; the player who steps aside to deliver his shot shall forfeit his stone for that end; no player after delivering his last stone shall remain longer then to see his next opponent fit his tee, but shall take his place at the other end, between the score and the previous player of his own party; he shall not give any directions to the next of his party who plays. 8. No player shall speak to or interrupt another when in the act of

delivering his stone; if he does so, one shot shall be added to the score of the party thus interrupted. 9. The rotation of play adopted at the beginning must be kept throughout the game. 10. No stone shall be changed during the game unless broken, in which case the largest fragment shall count. If a stone roll and stop on its side or top, it shall not be counted but put off the ice; and if the handle of a stone come off in the delivery, the player must keep hold of the handle, otherwise he cannot replay the shot. 11. If a player make a shot out of his turn, the stone may be stopped in its progress and returned to him. If the error be not discovered till the stone comes to rest, the adversaries shall have the option of adding one to their score, and the game may proceed, or the end may be declared null and void. 12. In the case of double-soled stones the side commenced with shall not be changed during the game, under forfeit of the match. 13. The skipper is to have the exclusive control of the sweeping department. There must be no sweeping till the stone has passed the hog's score, unless snow is falling or drifting, when sweeping may be allowed from tee to tee. Sweeping must be always to one side. 14. Before beginning to play, parties must take the different sides of the rink, and keep them during the game, and on no pretence shall any player be allowed to cross or go upon the middle of the rink. 15. If a running stone, in sweeping or otherwise, be marred by any of the party it belongs to, it shall be put off the ice. If it be marred by any of the opposite party, it shall be placed where the skipper of the party it belongs to shall order. If marred by any other means the player shall take his shot again. If a stone be displaced accidentally before the case provided for in Rule 13 comes into operation, it shall be placed as nearly as possible in its former position. 16. If a player play a wrong stone, it may be stopped while running, but if not stopped till again at rest, it shall be replaced by the stone he ought to have played. 17. The measuring of shots shall not be permitted before the termination of the end. The skippers shall settle points in dispute as to shots, and if they disagree, the questions shall be decided by a neutral party, whose judgment shall be final. 18. If a played stone be displaced before the last stone is thrown and at rest, by any of the party who are lying the shot, they shall forfeit the end; if by any of the losing party, who have the stone yet to play, they shall be prevented from playing that stone and have one point deducted from their score. The number of shots to be marked by the winners shall be decided by the majority of the players, the offender not being allowed to vote. 19. The game shall be regulated and directed exclusively by the skippers, who may play in any part of it they choose, but having selected their place at the beginning they must keep it to the end of the game. The players may advise but shall not have the control of their director, and they shall on no pretext address themselves to a person about to play. 20. If any questions arise which may not be provided for by the letter or spirit of the Rules now laid down, they may be referred to the three nearest members of the representative committee unconnected with the disputing parties, who shall form a district committee of reference, whose decision shall be binding on all concerned, till the annual general meeting of the representative committee, to whom either party may appeal the case or cases in dispute.

Adulteration of Food, &c.—"To eat dirt" is a well-known Oriental metaphor, signifying a state of humiliation; but difficult although it be to realize it, the remarkable process of eating dirt is performed by ourselves, not in a mere metaphorical sense, but literally and in fact. "No doubt," our readers will say, "we must all 'eat a peck of dirt,' more or less, during our lives, by swallowing from time to time unclean particles which accidentally find their way into our

food." This, however, is not our meaning, true although it may be. What we affirm is, that in instances much more numerous than we are apt to suspect, there are intentionally mingled with our food and drink foreign substances, for a great proportion of which "dirt"—not to employ any stronger term—is an appropriate appellation; and it is somewhat humiliating to think that we should thus be unconsciously compelled to exemplify the Oriental phrase, not in its figurative, but in its strictly literal sense, and that much more frequently and continuously than we are aware.

The subject is of very great importance, and comprehends so large a number of particulars, that a considerable volume might readily be given to its discussion. All we can do, however, is to lay before our readers such considerations as may lead to their more minute study of the question.

The Methods of Adulteration.—The infamous system we refer to is carried on in various modes. One method—and it is the least injurious form of the fraud—consists of mixing with the dearer and better class of substances used as food such as are of low price and of inferior quality, but of the same kind. A second method is that of mixing cheap substances of a different kind with that for which the substance is purchased. A third method consists of the introduction into articles of food of substances which are either not beneficial or actually injurious; and a fourth method is that of mingling with articles of consumption substances of a poisonous nature.

The Motive for Adulterating.—It is not requisite to suppose that this nefarious practice has its origin in any desire to inflict personal injury; it springs from the cupidity and dishonesty of those whose business it is to supply the public demand; but it is encouraged by that demand itself, and by the great ignorance as well as the prejudices of the consumers. An instance to this effect may here be given. Some years ago a respectable grocer in London, struck with the gross dishonesty of the system of adulteration too common in trade, resolved to furnish his customers with perfectly pure articles so far as it was possible to obtain them, and among the rest with ground pepper entirely free from any false admixture. On carrying out this design he found, however, that virtue was by no means its own reward; on the contrary, that it gave birth to no inconsiderable injury and mortification, for his ground pepper, although perfectly genuine, differed so much in appearance from the adulterated commodity, that the public would not purchase it; and it occasioned so violent a prejudice against the worthy tradesman that he was nearly ruined. It is doubtful whether pure mustard seed ground for use would be as acceptable to the public as the falsified article mixed with wheat flour and coloured with turmeric, known as superfine Durham. It will be found, indeed, in a variety of instances, that the system of adulteration arises not more from the dishonesty and cupidity of the dealers than from the ignorance of the public, and the facility with which they can be deceived.

Adulteration of Wheat Flour.—It is a fortunate circumstance that the great staple articles of consumption are much less liable to falsification than articles of minor importance. This, however, arises not from any virtue in the dealer, or any unwillingness to carry out the system of deception wherever and whenever practicable; it is merely the consequence of a physical difficulty. Take as an instance wheat flour. If the farmer, the miller, or the victualler could obtain a cheap substance which could be mixed with the flour to the extent of one-half or three-fourths, without the least fear of detection, and without any prejudicial results beyond those that were remote, such as injury to the health or danger to the life of the consumer, we cannot doubt that our flour would speedily be adulterated to the extent to which cayenne pepper is said to be. Upon the whole, therefore,

there is no great danger of our flour being made to consist chiefly of very fine plaster of Paris and sawdust bleached and carefully ground; and this not because of the results that would ensue, but because the gypsum and the sawdust would be too dear both in the purchase and the preparation.

Adulteration of Cayenne Pepper, &c.—It is, moreover, both fortunate and remarkable that the articles chiefly and most injuriously adulterated are such as are not absolutely "necessaries of life." Thus, for instance, cayenne pepper is adulterated not only with salt and mustard seed, which would be comparatively harmless, but with sawdust, brick-dust, and the poisonous drug red-lead. But with the various kinds of pepper and curry powders we might be able to dispense. Other articles of food are mixed with substances, which, if not positively and directly prejudicial, constitute a fraud and imposition, and are indirectly injurious to the consumer, who is made to pay for substances he does not require, and is thus cheated of his means.

Adulteration of Pickles, &c.—The preparation of pickles and of sweetmeats afford instances of adulteration, by means of chemical substances, of a poisonous nature. Verdigris or acetate of copper is employed to give to pickles the fine green colour they often exhibit; arsenite of copper, chromate of lead, bisulphate of mercury, red-lead, all of which are deadly poisons, are employed in giving various shades of colour to the numerous forms in which the confectioner makes up sugar, while the white sugar is itself mixed not merely with flour, but with a proportion of plaster of Paris.

To Detect Adulterations.—Various methods have been specified by which many of these impostures can be detected, such as the examination of the suspected substance by means of a powerful microscope, and by chemical analysis; and no doubt much might thus be done, but not one in a thousand of the persons most interested in the matter would be found competent, even if possessed of time and inclination, to pursue the inquiry.

Punishment for Adulteration.—How to check or terminate a practice so discreditable to the perpetrators, and so humiliating and injurious to those imposed upon, is a question not easily answered. Some legislative measures undoubtedly ought to be devised for this end, and strenuously enforced. To dispose of adulterated articles might in all cases be made a misdemeanour or even a felony, and a suitable punishment inflicted. But in default of accurate legislation, the consumer will best secure his own interests by dealing only with the largest and most respectable merchants, whose interest it is to furnish the purest articles that can be procured; the extent of whose business places them above the temptation to adulterate the articles they deal in, and whose position renders them superior to the gain made at the expense at once of honesty, manliness, and good conscience.

The Domestic Cat.—The cat is always an object of interest in the family. If she has a gentle temper—and in this respect cats are not all alike—she suffers the children to pull her about, giving no resistance, but exercising much of the virtue of passive endurance. She is endowed with singular curiosity. Anything or any place with which she is not perfectly familiar she takes care to examine and investigate. A new piece of furniture brought into an apartment at once becomes an object of curiosity to the cat, and puss is not satisfied till she subjects the article to a thorough examination. Even a drawer which she has not entered, if left open, will become the object of her scrutiny, and she must enter it to satisfy this instinct. If removed with the family to a new house, she will not be contented till every part of the domicile be examined. Some authors think that this propensity in an animal not gifted apparently with very great intelligence, is merely the conse-

quence of an instinct which prompts the animal to make itself thoroughly conversant with its future hunting-grounds, so that when seeking or pursuing her prey, she may be so well acquainted with every nook and corner that neither mouse nor rat shall have any chance of escaping from her claws. The cat has an instinctive delight in warmth and comfort, and seems quite a type of indolence and luxurious enjoyment; this, however, is only the case when she requires repose, for her activity and vigilance are marvellous when she is under excitement, during the pursuit of her natural prey.

Origin of the Cat.—According to naturalists the question of the origin of the domestic cat is involved in much uncertainty. Some authors state that the wild cat, of which there are specimens in the forests of the north of Scotland, and which are found probably in most countries of Europe, is the original stock from which all the varieties of the domestic cat have proceeded. Others think this is not the case, from a circumstance well known, viz., that the tail of the domestic cat is much longer than that of the wild animal. But this is no evidence against the theory referred to, for much greater alterations than the elongation of the tail are effected by domestication; the colours of the animal, and much of its instincts and habits, are more or less modified by that cause. Our own impression is that the wild cat is certainly the ancestor of the domestic species.

Varieties of the Cat.—There are a good many varieties of the domestic cat. Those of Persia are remarkable for the breadth of the fur upon the tail, giving it much the appearance of a fox's brush; and the Angora and Maltese breeds, which have for the most part long and silky fur, and the breeds found in the Isle of Man and in Cornwall, which have either no tail whatever, or only the rudiments of that important appendage.

The Persian and Maltese Cats are great favourites with the French. In many of the cafés in Paris a large white or grey cat is to be seen beside Madame at the *comptoir;* and they walk about with the utmost confidence through a crowd of strangers. They are much more familiar and intelligent than the ordinary domestic cat, and will follow their master or mistress like a dog. We were much amused lately when staying at the sea-coast, by watching two little girls who had each a grey Maltese kitten, which was regularly taken out to walk each morning and afternoon on the Common; the little creatures faithfully followed their mistresses, and the way in which they jumped over the tufts of grass, with their tails straight up in the air, and the fearful panic when a dog was seen in the distance, was extremely comic. These cats are, however, more delicate and susceptible of cold than the English cat; damp also is most prejudicial to them. Their basket should be lined with several folds of flannel, and they should be covered over warmly at night, and not allowed to go out in wet weather.

The word "cat-witted" is employed to indicate the possession of but a limited amount of intelligence and ability; and certainly, as compared with the dog, puss is inferior in intellect. But great differences prevail in this respect; some members of the feline race possess much more cleverness than others, and some have ability enough to rival some dogs in their faculties, in the exercise of which, as in the case of the more intelligent of the canine family, something by no means very dissimilar from a process of reasoning may occasionally be discovered.

Diseases of Cats.—The cat is subject to several diseases; but, as a general rule, is seldom seriously ill. The best rule to keep the animal in good health is to have it fed with regularity, kept clean, and furnished with plenty of pure water. In respect to the ailments of puss, "prevention is easier than cure," as it is in many matters of higher moment. The cat ought not to be overfed. If she appears out of sorts, a little brimstone in milk will

frequently be found useful; but, as in the case of dogs, in any serious malady puss ought to have the aid of a veterinary surgeon, especially if she be a valuable animal, and return the care lavished on her by reciprocal affection towards her owner.

Inodorous Paint.—All people are ready to admit the disagreeableness and inconvenience of the smell hitherto inseparable from the process of house-painting. The odour indeed in some instances produces headache, nausea, and sickness, and some persons find it requisite, in order to escape the annoyance, to vacate their premises, even if one apartment be subjected to the process. It appears that a highly ingenious composition has now been invented which supersedes the use of linseed oil, turpentine, and other odourous substances, commonly employed in making paint. This substance, which is not inappropriately called "the painter's desideratum," possesses very considerable advantages which render it worthy of public approval and patronage. The following are some of its peculiarities:—1. It dries rapidly. In less than half an hour after it is applied it is perfectly dry and hard, so as to be ready for another coat. 2. It is entirely free from odour, so that an apartment may be inhabited the same day on which it is painted. 3. It is economical; three coats of paint made with it are equal to four coats of the ordinary paint.

It is evident from these facts that the new composition is extremely well adapted for painting counting-houses, offices, ships'-cabins, and all places where the saving of time is an object. No time is lost as by the usual mode of painting, from the necessity of the workmen going from one job to another, or waiting for many hours till the various coats of paint have become dry; for example, a street door can, by the use of "the painter's desideratum," receive four coats of paint and be varnished in one day; whereas, by the old method five several days are required for the completion of the work. In addition to these advantages it may be added, that by the use of the composition now referred to, painters are in a great measure freed from those painful and often fatal complaints incident to their occupation; and, as already stated, those who suffer from the smell of paint are themselves exempted from that annoyance. It may be further mentioned, as an additional recommendation, that this new composition is durable, cleans readily, and is not injuriously effected by soap or alkalies.

Upon the whole, this ingenious composition may be styled, not only "the painter's desideratum," but "the HOUSEHOLDER'S DESIDERATUM." We are glad to find that the *Builder* and the *Architect*, both influential periodicals, express their approval of it; and we hope that so useful a discovery will meet with the success which we cannot doubt it justly merits. The "Inodorous paint" can be had of Mr. John J. G. Erek, 6, Devonshire Road, Hackney, London, and he will be ready to furnish any information on the subject that may be required.

Varnishes.—Varnishes are generally composed of resinous substances, dissolved in strong spirits and oil, turpentine being generally the spirit employed. The solution ought to be of such consistency as to enable it to lie quite smooth and flat on the article varnished, so that it will either leave a thin glossy coating, or can be made so by polishing after the surface is quite dry. Owing to the extremely inflammable nature of the materials employed, the preparation of varnish is highly dangerous, and should only be carried on in premises specially adapted for the purpose, and by competent workmen. Almost all of the varnishes suitable for domestic use can be had at the oil shops or drysalters, but we give a few simple receipts for the lighter descriptions, in case any of our readers may wish to prepare it for themselves. These receipts are extracted from the work of a practical chemist.

VARNISH FOR GRATES.—To two pounds of common asphaltum, fused in

an iron pot, add one pint of hot boiled linseed oil; mix well and boil for some time. When partially cooled add two quarts of oil of turpentine. If too thick increase the turpentine. Apply with an ordinary paint brush.

VARNISH FOR PAPER HANGINGS, MAPS, PRINTS &c.—Take of genuine pale Canada balsam and rectified oil of turpentine, equal parts, and mix thoroughly. Give the articles two coats of size before varnishing.

VARNISH FOR CARD-WORK, BASKETS, &c.—Take black, red, or any other colour of sealing-wax, according to fancy; break it into small pieces, and add enough rectified or methylated spirit to cover it; let the vessel stand near the fire for two days until it is quite dissolved. Give the article two coats of size before varnishing. The size is made by dissolving parchment cuttings in boiling water. This is a most useful varnish for fretwork, card-work, baskets, &c.

AN EXCELLENT VARNISH FOR PAINTINGS.—Take of pure white wax one pound, and melt it with a gentle heat; add one pint of rectified spirit. Mix perfectly, and pour it on a porphyry slab. Grind it with a muller to a perfectly smooth paste, adding more spirit as required. Put the paste into a marble mortar; make an emulsion with three and a half pints of water, gradually added; strain it through muslin, and let it become quite cold. When required for use, pass a hot iron over to fuse, and make it quite transparent. After it becomes thoroughly dry, polish with a clean linen cloth.

Maxims for a Cook.

I. Keep your kitchen and its furniture, as well as your cookery utensils, as clean and sweet as possible.

II. Let your own dress and appearance be scrupulously neat and clean, as well as suitable for your work; finery is particularly out of place in a kitchen.

III. Never give away food without the express permission of your mistress; when meat is in danger of being spoiled from being kept too long, and it is not needed for table, most mistresses will readily give permission to give it to some poor person, but it should not be given unknown to them.

IV. Always ascertain the peculiar tastes of the family, whether they prefer meat well or underdone, dishes highly seasoned or plain, and endeavour to meet their wishes rather than your own idea of what is the correct thing to be done.

V. Endeavour to avoid waste either in food or coals; some cooks will make a rich soup or savoury stew out of fragments, that a wasteful one rejects as useless.

VI. Should your mistress understand cookery, your best way will be to follow exactly her instructions; only it is better that a new dish should be tried for the first time when the family is alone, in case of a failure.

VII. Never undertake to do anything unless you are sure you can do it well; better try some other dish in which you know you can succeed.

VIII. In small establishments where a dinner is seldom given, a much greater amount of preparation is needed than where the family entertain frequently; in the former case, you had better ask your mistress to let you have some assistance for the occasion, otherwise you will not be able to do credit to yourself in the cooking of the dinner.

IX. Never trust any part of your duty to another without seeing that it is done in a proper manner; you are the accountable party, not your assistant, and upon you will fall the censure if there is a failure.

X. Remember that there is a great deal in the *appearance* of a dish; let each dish look well on the table, and have an appropriate garnishing or ornamentation; and above all, the dishes must be hot; nothing is more unpleasant than lukewarm meat or soup, while fish is utterly destroyed by being allowed to become cool.

XI. Be punctual in having the dinner exactly at the moment for which it has been ordered; a good cook has her dinner not only ready at the mo-

ment, but it is cooked, as the saying is, "to a turn."

XII. Cooks often have the reputation of being both cross and disagreeable; endeavour to avoid obtaining this character; make yourself useful to your employers, and pleasant and agreeable to your fellow-servants.

Hints on Seasoning Dishes.—Many of the ordinary articles of food are so insipid, that in order to render them palatable, some condiments are required, or some of those preparations known in the art of cookery as seasonings. Thus, to mention an example or two; veal, which is rather tasteless, is much improved by a little lemon-juice squeezed upon it; roast mutton is the better for a little red-currant jelly, and even roast beef is rendered more palatable by being eaten with a sauce made of mustard and horse-radish, and for these and all other kinds of fresh meat salt is universally required.

General Rules as to Seasonings.—All condiments, or seasonings, used for the purpose of promoting digestion or correcting some unfavourable quality in the food taken, may be subdivided into four classes—1, saline; 2, saccharine; 3, oleaginous; and 4, aromatic.

Saline Condiments.—Of these the principal are common salt and vinegar; the first of these is a natural and necessary stimulant to the digestive functions, and its daily use conduces to the preservation of health and strength; the second is a grateful and salutary stimulant.

Saccharine Condiments.—Sugar is the chief of these. It is nutritious, antiseptic, and even laxative, and may be employed with advantage in seasoning.

Oleaginous Condiments.—Of these olive oil and butter may be mentioned as two of the most important. The former, used as a seasoning to raw vegetables, checks their fermentation in the stomach, and prevents their being too flatulent.

Aromatic Condiments.—These chiefly consist of spices, such as pepper, cinnamon, nutmeg, cloves, ginger, and certain garden seeds and roots, namely, garlic, onion, and mustard.

The art of cookery prescribes the various modes by which these different condiments may be employed in making seasonings for dishes. Without, however, entering into those minute particulars, which belong to the culinary art, one or two general observations may be useful.

It cannot be doubted that the various substances now enumerated, are well adapted to "season" and improve the flavour of food, and even to render it more wholesome as well as digestible. It must be kept in mind, however, that the use of vinegar is not adapted to all constitutions, and that several of the aromatic condiments already mentioned, however agreeable, ought to enter but very sparingly into the seasonings used by persons of full habit, and who are liable to any inflammatory ailments; and finally, as a general rule, it ought never to be forgotten that the habitual or frequent use of strong seasonings, tends, in the opinion of the most eminent judges of the matter, to injure the stomach, and deteriorate its digestive powers.

Hunger is said to be the "best sauce," and in the spirit of that well-known aphorism, we may venture to add that the best "seasonings" we can employ are not those compounded in the kitchen, but fresh air, ample exercise, temperance, regular habits, and abundant occupation both for body and mind.

Hints on Home Decoration.—Skeleton Leaves.—We have oftener than once picked up, on a country road, in the autumn season, a skeleton leaf. The object is an interesting one. The green of the leaf is gone for ever, the "fleshy" matter has vanished, and what we see is merely a brown skeleton, or rather a sort of framework, consisting of the stems that form the true skeleton of the leaf, and the fine network of veins which fill the intermediate spaces, and the purpose of which, in the living leaf, is to carry the sap—the life-blood of a plant—from one quarter to another.

However interesting the skeleton of a leaf that has been bleached by nature may be, it cannot be alleged to be beautiful in colour, and therefore it is not of much value for the purposes of household decoration. But it happens that in this instance, at least, we can improve upon nature; for the leaves that are artificially macerated and bleached, are much prettier in appearance than those that have been subjected to the "skyey influences" of wind and rain. When carefully treated, a skeleton leaf is white in colour; and, as every vein and stem is perfect, the object is not only curious and instructive, but also very beautiful. Different kinds of leaves tastefully grouped upon a dark background—black velvet is perhaps the best—form a very elegant ornament.

The stores of nature yield almost endless varieties of leaves, suitable for being bleached, and used for home decoration; but among the best known and the most easily obtained, are the leaves of the different kinds of poplar, the leaves of the apple and pear trees, of the ivy, the willow, the maple, and the columbine. Many seed-vessels also—for example, those of the thorn-apple, of henbane, of the wild poppy, &c.—may be treated in the same way, and have a very telling effect when judiciously intermixed with skeleton leaves in decoration. The leaves should be gathered during the summer months, placed in a tub of some sort, covered with water, and left exposed to the sun. Young leaves are unsuitable, therefore do not pick them *off the end* of a branch, but lower down. After the leaves have remained a fortnight, they may be examined, and those of them that are evidently decaying rapidly, should be removed, and placed in a basin of clean water. In moving the leaves we must be careful not to touch them with the fingers. We must float them on to a card when we wish to examine or to move them. After moving them into the basin of water, we clean the leaves by brushing off "the skin" with a hair pencil, and removing the green "fleshy" matter. In using the brush, we do not sweep it across the leaf as if we were painting; if we did so, we should tear the skeleton. We bring away the green matter by "tapping" the leaf with the brush. After being cleaned, the leaves are bleached by being immersed in a mixture of chloride of lime and clean water. When bleached, the leaves are again repeatedly washed, and then dried in an oven or before the fire. There are many ways of mounting skeleton leaves, and the only general direction we can give here, is to have a dark background, which will throw out the white veins of the leaves.

Feather Screens.—These exceedingly handsome ornaments can be made at home; and though, in making them, certain processes may not be considered as feminine employments, yet a younger brother or some friend will generally be found, who will take upon himself the labour of stuffing the head, &c. A feather screen is made of the wings, and the skin of the head and breast of the bird. The most suitable birds are those of a naturally rapid flight, for in them the wing feathers are strong, and will bear to be firmly handled. The pigeon, all the tribe of ducks, wild and tame, as well as the large family of hawks, make excellent screens.

The wings are first removed by cutting the muscles at the elbow joint. The feathers are afterwards lifted and held back on the breast, and the skin is cut round to the back. The skin is then drawn off over the head, and will be found as a rule to come off easily. The neck is severed from the head at the base of the skull, all pieces of flesh or skin are removed, the eyes are taken out whole, and the brains scooped out with a quill. The hollow of the skull is then stuffed with wool, wetted with arsenical soap. The inside of the skin is also smeared with the arsenical soap, and stuffed with wool. The wings are now taken in hand, and all the flesh and sinews removed from them, and the skin and bones rubbed

with the arsenical soap. The wings are then stretched on a board, and if the feathers do not naturally lie in the required direction, they must be fixed with pins hammered into the board. The making up of the screen consists in fitting a piece of millboard to the screen handle, fixing the wings to this millboard, and then fitting on the head and breast. The fixing on is done chiefly with glue, and with a darning-needle and twine.

The Game of Draughts.—This game has in some respects a likeness to chess. It is played on a board like that used for chess, divided into sixty-four squares, coloured in the same manner. But in preparing to play the game, the square on the right hand of each of the two players must be a black square. Two persons play the game, but they have each only twelve men instead of sixteen, as in chess.

Placing of the Men, &c.—In draughts, the moves are simple, presenting to view very little of the inexhaustible variety of chess, and the marvellous complication to which the movements of the various pieces conduce. The game is played with flat discs of wood or ivory—such as are used in the game of backgammon,—coloured white and black, or red and white, as the case may be. All the men on the board must be placed in order, on one of the same colour; by this means — supposing the white squares only to be played on—the white squares on the first three lines on each side of the board will be occupied by the men, leaving the two middle lines of squares unoccupied.

Object of the Game.—The game consists of an effort made by each player to take all his opponent's men, or so to block them up that they cannot move without being taken. He who first accomplishes this wins the game.

The Moves.—These are sufficiently simple. The men cannot move either straight forward, or to the right or left, or backwards; their moves are only in a diagonal direction, similar to that of the bishop in chess; but the move is restricted to one square, except in cases which shall be presently described, and can be made at the early stages of the game only in an onward direction. If one of the adversary's men be in the way, the man of course cannot move, but if behind the man in front of him there be a vacant square, he can leap over the other into the square beyond him, and so capture the man over whom he has thus leaped, and who must then be removed from the board. And if it should happen that the man who has thus leaped over and taken his adversary should, on occupying the new square, find another man before him, having also a vacant square immediately beyond him, he can leap over this enemy also into the vacant square beyond, and repeat the process a third or fourth time if possible on each occasion; and as it were, at one move taking several of the adversary's men. This is an important matter, because, as already mentioned, the grand object of each player is to clear his opponent's men off the board as quickly as possible. Much skill and judgment are accordingly called forth for this purpose, each player endeavouring so to play (as to afford some of his men the opportunity of leaping over) and taking in succession several of those of the adversary.

When any of the men belonging to either side have found their way to the furthest line of squares on the opponent's side of the board, they become possessed of a new privilege, that of being crowned, which confers on them a power both of moving and of taking men different from what they previously enjoyed. The piece is crowned or converted into a king by having another man placed upon it, and it is then entitled to move backwards as well as forwards, still keeping, however, to the diagonal line as before, and is rendered capable of leaping over and taking any man with an open square behind it, as already described in its former onward movement; and it can likewise capture any number of the adversary's men in succession which

have an unoccupied square behind them. It is obvious that the privilege of being crowned renders the man so distinguished much more formidable to their opponents than before, and hastens the conclusion of the game. It is the object therefore of each player to convert his men into kings as early in the game as possible, in order not only to support his own men, but more effectually to attack those of his adversary.

On accomplishing the object of getting one or more of his men crowned, the player must exercise his skill either in taking his opponent's men, or so blocking them up that they cannot move without being captured. One or two practical lessons will be sufficient to illustrate the mode in which this is to be done. The first move is of considerable importance, and the players in successive games take the first move alternately.

Rules of the Game.—I. The men, as already stated, may be placed either on the black or the white squares. If put upon the black squares, each player will have a white square at the right-hand corner of the board; if placed on the white squares, there will be a black square at each right-hand corner. II. The choice of the men and the first move are to be determined by lot. III. No player is allowed to perform any act which may prevent his opponent from plainly seeing the situation of all the men. IV. If a player touch a man unless to adjust it upon the square, he is bound to move it. V. If a man be *en prise*—*i.e.*, capable of being taken—it must be taken; but if the player to whom it belongs do not capture it, the opponent may "huff" him, by removing his man from the board, and then playing a man of his own. And the player may, if he choose, insist on his adversary taking the man offered instead of "standing his huff." VI. Five minutes is allowed for a move. A player exceeding that time loses the game. VII. A player loses the game if he ceases to play without his adversary's consent. VIII. If only two men, crowned or not, remain at the end of a game, one of the players may call on the other to win the game in forty moves, or to consider it a drawn game. IX. If three kings remain opposed to two, the player with the inferior force may demand of his opponent that he shall win the game in fifty moves, or make it a drawn game. X. If a player make a false move, he must replace the men and move correctly, or resign the game. XI. If several pieces be taken at one move, none of them must be removed from the board till the taking piece has arrived at its final square; and if the player fail to take the man he can take, his opponent may "huff" him. XII. When a man arrives at the last row of squares on the opponent's side, he must at once be crowned, and he cannot then move till his opponent has moved his man. XIII. Disputes are to be settled by the decision of the majority of the company present.

The Game of Piquet.—In this game two persons play, and thirty-two cards are used, which are these—viz., ace, king, queen, knave, ten, nine, eight, and seven of each suit; these cards rank in the order of this list, at the head of which is the ace. The first step after the stakes are agreed upon is to cut for deal; he that cuts the lowest card deals. The cards are dealt two by two; each player is to receive twelve cards. Twenty-four being thus distributed between the two players, eight cards remain. These are called "the stock," and are to lie on the table between the two players.

On receiving his cards each player must sort them, putting together those of each suit, and ascertaining whether he has what is called a *carte blanche*, that is to say, that his cards have no "picture" cards among them, viz., king, queen, or knave. The advantage of a carte blanche is this: the player who has it counts ten, and this takes precedence of every other score, counting towards the pique or repique, and preventing the adversary from having either one or the other; and if

the player who holds it be at ninety or more—game being one hundred—he wins the game.

When the cards are sorted by the players, the elder hand discards—that is, he throws out not more than five of the cards that appear to him to be of least value, and takes from the stock in exchange for them a corresponding number. The general rule applicable to discarding by the elder hand may here be stated; that he must necessarily exchange one card, and must leave three cards in the stock for dealer, and if he take a smaller number than five, he has a right to look at such of the five as he leaves. The dealer is under no obligation to discard; but if he does so, he must take in the cards left by the elder hand and his own, three at the bottom of the stock, and he is at liberty to take not those three only but all his adversary has left. If he leave any cards, he has a right to look at them, and if he does so, the elder hand may look at them also, but not otherwise.

In reckoning the score the following are to be considered, besides the carte blanche already referred to,—viz., the Point, the Sequence, the Quatorze, the Cards, the Capot. Of each of these some brief details may be of use.

I. The Point.—The player who has the greatest number of cards in a suit is said to have "the point." If, however, both players have an equal number of cards in the same or in different suits, then the person has the point who has the greatest number of pips, reckoning the ace as being eleven, and the court cards as ten each. Whoever has the point counts one for each card; but if the number ends in four, then the person holding it counts one less than the number of cards.

II. The Sequence.—This is the having several cards in the same suit following in a consecutive manner, as the ace, the king, the queen, the knave, the ten, nine, and eight; and of these there are six kinds, known by the following French terms:—*Tierce*, or three in sequence; *Quart*, four in sequence; *Quint*, five in sequence; *Seizième*, six in sequence; *Septième*, seven in sequence; *Huitième*, eight in sequence, in a whole suit. The most numerous of these is the most valuable, and where the numbers of cards are equal the highest is the most valuable; for example, a tierce to an ace, which is termed *tierce major*, is more valuable than any other tierce, although inferior to a quart to a ten, as the latter contains four cards. The sequence counts next to the point, a tierce being equal to three, a quart to four, a quint to fifteen, a seizième, sixteen, &c. As an illustration of this—if the elder hand have five cards for his point he counts five, and if these five are a sequence he counts twenty—five for the point and fifteen for the quint.

III. The Quatorze.—When a player has four cards of equal value in the four different suits, he is said to have a quatorze, and whatever player holds the highest quatorze counts fourteen, the highest taking precedence, and rendering of no value any inferior quatorze. If neither of the players holds a quatorze, then three of equal value or three aces count three, and next in order to the sequence. The lowest quatorze, that of tens, is superior to the highest three, that of aces, and whoever has the highest quatorze, has the right to count any that are inferior, although his adversary should have an intermediate one. The quatorze of aces annuls all the others; and he who has them counts a quatorze of tens, although his opponent should have a quatorze of kings, queens, or knaves. If there be no quatorze, he may count three aces, kings, queens, knaves, or tens, and three aces are held superior to three kings, and by holding a good quatorze the player may not only count inferior ones, but even three tens, and any other threes but those nine, eight, or seven, although the opponent may have three of a superior value.

IV. The Cards.—Two cards, one from each player, make a trick, and if each player has six tricks, then the

cards are divided; but if either of the players wins seven or more tricks, he is said to have the cards, and in virtue of this he has the privilege of counting ten beyond the number he has already scored.

V. The Capot.—A player is said to win a capot when he wins all the tricks, and in this case, instead of adding ten to his score, he adds forty.

Having thus briefly explained the foregoing terms, we shall now present to the reader a view of the general rules to be observed in playing the game, avoiding for brevity's sake any minute statement of the reasons on which these rules are founded.

General Rules.—I. The player ought to play by the stages of his game. If backward in the game, he ought to play a pushing game, otherwise he ought to make twenty-seven points elder hand and thirteen younger hand. In every hand he ought to compare his game with that of his opponent and discard accordingly. II. You ought to discard in expectation of winning the cards, and this is so essential a part of the game, that it makes twenty-two or twenty-three points difference; therefore do not discard for a low quatorze, because in so doing you run the risk of losing above twenty points in the hope of winning fourteen. III. At the commencement of a party, play to make your game, which is twenty-seven points elder hand and thirteen points younger hand. IV. If your adversary be much before you in the game, the consideration of winning the cards must be put out of the question. V. When you discard, endeavour to gain the point without the risk of losing the cards by so doing. VI. Always risk some points for the material object of saving your lurch or lurching your adversary. VII. If you have six tricks with any winning card in your hand, always play that card. VIII. If you are much advanced in the game, let your adversary gain two points for your one as often as you can, especially if you are to be elder hand in the next deal; if, on the contrary, you are to be younger hand, never regard the losing of two or three points for the gaining of one. IX. The younger hand ought to play on the defensive; in order therefore to make his thirteen points, he is to carry tierces, quarts, and strive for the point. X. The elder or younger hand should sometimes sink one of his points in the hope of winning the cards, and he must do this with judgment and without hesitation. XI. It is considered good play for a younger hand not to call three queens, knaves, &c., and to sink one card of his point. XII. The younger hand is not to take in any cards, if he thus runs the risk of losing them, unless he is very backward in the game. XIII. If the younger hand have the king, queen, and nine of a suit, or the king, knave, and nine of a suit, he may discard either of the suits. XIV. If three aces are dealt to the younger hand, his best play generally is to throw out the fourth suit. XV. The younger hand ought generally to carry guards to his queen suits, in order to make points and save the cards. XVI. If he finds that the elder hand, by calling his point, has five cards which will make five tricks in play, and may have the ace and queen of another suit, he ought to throw away the guard to the king of the latter suit. This will afford him a chance of saving the cards. XVII. If the elder hand has a quart to a king dealt him with three kings and three queens, and is obliged to discard either one of his quart to the king on a king or queen, he is to do so in such a manner as will afford him the greatest probability of winning the cards. XVIII. If the elder hand has taken in his five cards, and has the ace, king, and knave of a suit, having discarded two of that suit, and has likewise the ace, king, knave, and two small cards of another suit, but no winning cards in the other suits, he ought to play from the suit of which he has the fewest in number. XIX. If the elder hand be certain to make the cards equal by playing them in any particular manner,

and if he be advanced before his opponent in the game, he ought not to risk losing them; if, however, his opponent is much before him, it becomes his interest to risk losing the cards in expectation of winning them.

Laws of the Game.—The laws of Piquet, briefly stated, are the following:—I. The elder hand must lay out at least one card. II. He loses the game if he takes in one of the three cards belonging to the younger hand. III. If he happen to turn up a card belonging to the younger hand, he is to reckon nothing that deal. IV. If the younger or elder hand play with thirteen cards, he shall count nothing. V. If either player have thirteen cards dealt, it is at the option of the elder hand to stand the deal or not. VI. If either player reckons what he has not, he counts nothing. VII. If the elder hand touches the stock after he has discarded, he cannot alter the discard. VIII. If a card be faced, and is discovered in the dealing on the stock, there must, unless it be the bottom card, be a new deal. IX. If in dealing a card belonging to the elder hand be turned up, he has a right to have a new deal if he choose. X. If the younger hand takes in five cards, he loses the game unless the elder hand has left two cards. XI. If the elder hand calls forty-one for his point, which happens to be a great-major, and is allowed to be good; and if he reckons only four for it and continues to play, he is not entitled to count more. XII. If he shows a point, quart, or tierce, and asks if they are good, and forgets to reckon any of them, the younger hand becomes thereby barred from reckoning any of equal value. XIII. Carte-blanche counts first and saves piques and repiques; it need not be shown till the adversary has first discarded. XIV. If the elder hand calls a point and does not show it, it is not to be reckoned; and the younger hand may show his point and reckon it. XV. You must cut two cards at least; if you play with eleven, or fewer, no penalty attends it. XVI. If the elder hand leaves a card, and, after he has taken in, puts to his discard the four cards taken in, they must remain with his discard, and he only plays with eight cards. XVII. If the younger hand mixes a card with his discard before showing it to the elder hand, the elder hand has a right to see his whole discard. XVIII. If the younger hand leaves a card or cards, and does not see them, the elder hand has no right to see them; but if the younger hand leaves a card or cards and looks at them, the elder hand has a right to see them. XIX. If a card too many or too few be dealt, the elder hand has the option of a new deal, and must leave three cards for the younger hand if he stands a new deal. XX. A player ought, in the first place, to call his point. If he have two points, and intends to reckon the highest, he must call that first, and abide by the first call; tierces, quarts, quints, &c., are to be called next, and the highest must be called if it be intended to reckon them and a quatorze is to be called in preference to three aces; and if he call a tierce, having a quart in his hand, he must abide by the first call. XXI. If a player deals twice together, and discover it before seeing his cards, he may insist on his adversary's dealing; if the pack be found faulty in any deal, that deal is to be held void. XXII. If a player at the commencement does not reckon or show carte blanche, &c., he cannot count them afterwards. He cannot discard twice, and is not allowed to take any of his discard back again after he has touched the stock. XXIII. When the elder hand does not take all his cards, he must specify the number left and taken. XXIV. If a player shall call his game wrong without correcting himself before he plays, he is not permitted to reckon anything that game; but the adversary may reckon all that he has good in his own game. XXV. A card is understood to be played if it has touched the board; if a player names a suit and then plays a different one, or if he looks at any card belonging to the stock, he is liable to have a suit called.

We must refer our readers to the more elaborate treatises on Piquet for illustrations and examples of particular games, and the computations relating to them, in accordance with the doctrine of probabilities.

Oysters, How to Keep and Preserve.—The best mode of effecting this object is to wash them perfectly clean with a brush; pack them in a tub with the flat side uppermost, cover them with water containing salt in the proportion of four or five ounces to each gallon of water, strew over the top some good oatmeal, and change the water every twenty-four hours. Those packed in barrels at the beds, only require a little oatmeal with salt and water; they will keep alive for several days if attended to; a weight should be placed over the oysters to prevent the shells from opening too much.

Oysters, to Cook.—It is the boast of a celebrated restaurant at the other side of the Atlantic, that they can cook oysters in a different mode for every day in the year. Without attempting to follow such a multitudinous example, we may venture to offer to our friends a few tried receipts for cooking this favourite shellfish, which we have no doubt will be found pleasing to those who follow them.

Oysters, to Fry.—Choose large plump oysters, boil them in their own liquor for about a minute, drain them, and strain the liquor, fry them in two ounces of butter, their own liquor, half a teaspoonful of chopped parsley, and a dessert spoonful of catsup, lay them on a dish, and garnish with parsley and toasted sippets.

Oysters, to Roast.—An American Receipt.—Choose out the largest shells you can find, lay them with the flat side uppermost on a gridiron over a clear fire; make a seasoning of lemon juice, cayenne, and salt; and when each oyster shell opens, put in about a teaspoonful of this sauce and a little bit of butter, and let it stew for five minutes. These are extremely nice, eaten with brown bread and butter.

Oyster Soup.—At page 11 will be found an excellent receipt for oyster soup.

Scalloped Oysters.—Scald the oysters for a minute in their own liquor, beard them and strain the liquor; put a few into a scallop shell or patty pan, strew over them a few finely grated bread crumbs, pepper, salt, and nutmeg, squeeze a little lemon juice into the strained liquor, put a little into each shell with a few drops of essence of lemon-peel, cover over with bread crumbs, put a few bits of butter on the top, and brown in a Dutch oven.

Oyster Patties.—Scald the oysters, and strain the liquor; add to it twice as much cream as there is liquor, thicken it with fine bread crumbs, season with a little salt, white pepper, nutmeg, lemon-peel, and very little lemon-juice; line some mince-pie pans with puff-paste. Mix the oysters and cream well together, fill the pans, cover them with paste, and bake; if the cream is not rich, put a bit of butter as large as a nut in each patty.

Oyster Fritters.—Make a stiff batter with one or two eggs, according to the quantity required; season to taste with pepper and salt. Prepare some oysters as if for sauce, dip each into the batter, and fry of a nice brown colour, either in very fresh lard or butter. Lay them on a clean sieve before the fire until every particle of grease has drained from them, and serve them on a hot napkin.

The Gallina, or Guinea-fowl.—This bird has been known in England for five hundred years. It is a native of that part of Africa which its name indicates, but it is also said to be indigenous in America. It is a larger bird than our ordinary barn-door fowl; but the eggs are small, three of them being hardly equal to an ordinary hen's egg; they are, however, numerous and well-flavoured. This fowl does not thrive in confinement, but requires perfect liberty, and a wide space over which to wander. And it is of so pugnacious a character, moreover, that it can hardly be got to associate with other poultry on amicable terms. They

are not so generally reared in this country as might be expected, considering that they come into season at the end of January, just when pheasants and partridges are going out. The difficulty of rearing the young ones in this damp climate, and the very noisy and destructive habits of the old birds, may account for their absence generally from our poultry yards. They are, however, very excellent eating, and well worth the trouble of keeping.

To Keep Guinea-fowl.—The best way to begin is to procure some eggs of a good stock, hatch them under a small variety of fowl, such as gamefowl or bantams; when the chicks appear, keep them under cover where they can have plenty of air and dry gravel; feed them frequently, at least once in every three hours. Begin by giving eggs and milk made into rather a dry custard; towards the end of the first month, add a little oatmeal mixed with milk, and as they grow older, boiled vegetables, small wheat, and potatoes, may be given. Ants' eggs are their favourite delicacy, and will be found most nourishing food for them. These birds are very fond of scratching in a garden, not for seeds but for insects and grubs, and it is questionable whether they do most harm in rooting out the gardener's seeds, or good in destroying the insects that would eat up his plants after they had grown up.

To Cook Guinea-fowls.—These birds are generally used for table when young, say eight or nine months old at most. Hang the bird as long as possible, truss like a turkey-poult; it may be roasted either stuffed or larded.

Stuffed Guinea-fowls.—Make a rich pork forcemeat, fill the bird with it, cover it with white paper, thickly buttered, roast an hour, basting it very well all the time, as it is rather dry. Serve it with a rich gravy and bread sauce.

Larded Guinea-fowls.—Lard the breast well with shreds of fat bacon, and roast it before a clear fire, baste it well with butter; just before it is roasted enough, dredge it well with flour as a roast fowl is done, and let it froth nicely. Serve with rich gravy and bread sauce.

Cold Guinea-fowl may be redressed like cold fowl or turkey.

Glue for Fretwork, Fancy Articles, &c.—Salisbury glue is the best kind for fancy work; the price is about one shilling per pound; the sheets should be transparent, and of the colour of dark amber. As much of this glue as is required should be soaked in cold water for ten or twelve hours; the water must then be drained off, the bits of glue put into the inside tin of a common glue-kettle, and the space between the tin and the outside filled with boiling water; this should be placed near the fire, so that the water may remain hot and simmering, and in a short time the glue will be found dissolved and ready for use. It ought to run from the brush in a fine continuous stream, but if too thick to do this, a very little hot water may be added to it. The firmness of the joint does not depend upon the thickness or quality of the glue, so much as upon the two edges of the wood being strongly pressed together, and the glue squeezed out as much as possible. If it is applied to the grain of the wood endwise, it will be much absorbed, and may require applying a second time. Anything glued should be left undisturbed for some hours, until it becomes quite hard and dry.

To fix Photographs in an Album.—Use dextrine, a preparation from starch in the form of a white powder. Make a rather thick paste of this with cold water, taking care to keep it all perfectly clean; cover the whole of the back of the photograph lightly with this, and place it on the desired page of the album. A sheet of white blotting paper should be laid on the under side of the album page. Smooth the photograph gently all over and round the edges with a white handkerchief. Glenfield starch, made thick and boiled rather longer than is required for stiffening, is also very good for fixing photographs.

Family Pictures.

Father.

In prime of years, but with a trace
Of life's past trials on his face;
Dispelling these at eventide,
When daily cares are cast aside;
A small dominion, all his own,
He sits upon his household throne,
While hands, and hearts, and lips draw near
The Father's hours at home to cheer.

Mother.

First in her duty and her love,
A gentle Mother comes to prove
That she who shared his joys and tears,
Divides the wreath her Husband wears.
And still there beams from her sweet face
Reflections of that early grace
Which rapt his fancy, won his heart,
And made her of himself a part.

Sister.

But in the Daughter more we see
Of Mother's girl-simplicity:
Her gentle look, her graceful walk,
Her cheerful song, and pleasing talk;
Her busy fingers, never still,
Her loving heart, her ready will
To soothe a care, or charm a pain—
In her the Mother lives again!

Brother.

Hope of the house! whose manly pride
Turns fears of future cares aside;
Ambition burning in his breast,
By love of home alone repress'd!
How much of life he seems to know;
What depths his early maxims show:
A rock on which his parents rest,
To find their years supremely blest!

Uncle.

Uncle, who calls on Sabbath day,
Or at the sunset finds his way,
To talk of all absorbing themes
That move the world, and fill his dreams;
With some grave notion lately caught,
Or fresh experience strangely bought;
Nephew and Uncle, side by side,
Philosophize with conscious pride!

Aunty.

Aunty, on bits of gossip bent,
Avoids the sages thus intent;
And, with her little scraps of news,
Mother and Sister must amuse;
While Father listens with surprise
To problems of philosophies,
Obscured at some prevision choice,
By Aunty's never-tiring voice!

One Other.

And who is he, unlike the rest,
Who seems upon their love impressed?
Why come so oft? Why linger late?
Why look back from the garden gate?
Why bring fresh flowers, where garlands grow?—
Causing dear Sister's cheeks to glow;
Filling with tears her Mother's eyes,
And rousing Aunty's shrewd surmise!

* * * * *

To that Other let us say:
When you bear the prize away,
Guard her with a holy care,
Sacred hopes and loves rest there!
So that, in your own good time,
When a parent in your prime—
Father, Mother, Sister, Brother,
Uncle, Aunty, and—One Other—
Gather round your household shrine,
And a lovely Daughter thine,—
You may to that Other say,
When he bears *your* child away—
"*Prize her, love her all your life,*
As I have loved and prized my Wife!"

To Extract Splinters.—Thorns and splinters finding their way under the skin frequently give no inconsiderable pain, and unless extracted, the annoyance may be very great, as inflammation will in all probability ensue, which is the process nature adopts for getting rid of the cause of irritation. If the splinter or thorn cannot be immediately extracted,—for which purpose a needle will be found

in most cases a sufficient surgical instrument,—linen dipped in hot-water ought to be bound round the place, or the part may be bathed in hot water. In the event of inflammation, which may probably issue on the production of an ulcer, the steam of hot water should be applied, and afterwards a poultice of bread and milk.

Whitlow.—Causes of Whitlow.—There are very few affections that commence so simply but afterwards become so painful and serious in their results as whitlow.

It is most frequently found in people in a low state of health, and in nervous and delicate females. The commencement of an attack is generally marked by pain and redness in the finger, or palm of the hand, as the case may be. The pain, slight at first, becomes gradually more intense and throbbing, and entirely prevents sleep. The patient suffers from loss of appetite, and falls into an irritable state from the constant pain and want of sleep, and in some severe cases, unless relief is obtained, delirium may come on. Whitlow is sometimes found as a consequence of certain constitutional diseases, and may also be caused by wounds from a thorn, a splinter of wood, a rusty nail, or the sting of a fish. The latter is a common cause amongst fishermen.

Cure of Whitlow.—If the disease is situated under the skin, the pain is not very severe, and hot fomentations and poultices will generally be sufficient; but if it is situated deeply near the bone, in the finger or palm of the hand, with severe throbbing pain, the aid of a surgeon must be sought, and an incision made to allow the matter to escape. The relief is immediate; poultices, hot fomentations, and water dressing should afterwards be applied.

In the deep-seated and painful forms of whitlow, when surgical aid is not called in early, the bones of the hand or fingers become diseased, and loss of power and motion are the result.

After an attack the patient will generally require tonics, with nutritious diet, and change of air, if possible.

Colic.—This arises from several causes, perhaps the most common being indigestion, with flatulence. Nervous or spasmodic colic sometimes occurs, as well as that caused by fright, hysteria, cold, gout, &c. Mineral poisoning by lead and copper will also produce attacks of colic.

Symptoms of Colic.—The symptoms of a "fit of the colic," as it is called, are severe twisting pains in the abdomen, occurring in paroxysms, relieved by pressure, but without any feverish symptoms, such as thirst, heat of skin, quickness of pulse, &c. The attacks seldom last long, but the pain is generally very severe and distressing during their continuance, and relief is impatiently called for.

Cure of Colic.—When the cause arises from indigestion or improper food, a stimulating and anti-spasmodic draught, containing brandy, ether, chloroform, or opium, should be given, with hot turpentine stupes to the abdomen. A purgative draught will also generally be useful, when the attacks are induced by poisoning with lead or copper. The first consideration is to find out the source of the poison, and remove it. This will most frequently be found in the water used, or in the cooking utensils. In people suffering from lead poisoning, a blue line is seen on the gums where they touch the teeth, and in poisoning from copper a purple line in the same place. The treatment in these cases, after the removal of the cause, consists in the use of free purgatives, opium to allay pain, warm baths, and nutritious diet and stimulants, to support the system, whilst nature is eliminating the poison. Milk in large quantities, as an article of diet, has been found very useful, and electricity has been strongly recommended.

Anodyne and Diaphoretic Powder.—James's powder, three grains; carbonate of ammonia, four grains; compound powder of ipecacuanha, four grains; mix. In gout, rheumatism, and many diseases, this powder procures sleep and allays pain. It may be repeated every four hours.

Draughts.—This term signifies the form in which the liquid medicines are taken, that are required to act speedily, and the dose of which must be definite, and does not admit of being very frequently repeated. They are intended for various purposes in medical practice, as the list subjoined will sufficiently indicate.

Draught for Heartburn, or Morbid Acidity of the Stomach.—Twenty drops of pure water of ammonia, in two ounces of almond mixture, or of common water. Ammonia is an alkali, and neutralizes the acidity.

Draught for Nervousness.—Ammoniated tincture of valerian and compound tincture of bark, of each one drachm; compound tincture of aloes, ten drops; camphor mixture, an ounce and a half; mix the ingredients. This draught may be repeated three or four times a day. It is of great service to those who are weak and nervous.

Tonic Draught.—Solution of acetate of ammonia, two drachms; tincture of bark, a drachm and a half; decoction of bark, an ounce and a half; aromatic confection, half a drachm; mix the ingredients. This is an excellent medicine. It combines with the effect of a tonic, the power of relaxing the skin, and lessening feverish symptoms, indicated by heat and dryness of the skin.

Draught for Spasms, &c.—Ammoniated tincture of valerian, two drachms; tincture of castor, one drachm; Battley's solution of opium, twenty drops; camphor mixture, one ounce; syrup of tolu, one drachm; mix. This draught will be found of great benefit in spasms of the stomach and hysterical ailments, to which weak and delicate persons are frequently subject.

Emetic Draught.—Emetic tartar, one grain; ipecacuanha powder, fifteen grains; common water, an ounce and a half; mix. This is a useful prescription, and is usually employed for the purpose of unloading the stomach, either in ordinary cases or in fevers.

Purging Draught.—Compound infusion of senna, an ounce and a half; cinnamon water, two drachms; manna, one drachm; Epsom salts, one drachm; mix. This is the "Black Draught" so frequently prescribed, and so useful.

Cooling Draught for Fevers.—Subcarbonate of potash, one scruple; cinnamon water, two drachms; common water, an ounce and a half; syrup of orange-peel, one drachm; mix the ingredients. A tablespoonful of lemon-juice must be added immediately before the draught is taken. This is a saline and effervescing draught, frequently given in fevers or inflammations. It allays heat, quenches thirst, and encourages perspiration. It may be repeated every three hours.

Mixtures.—Cordial Mixture for Depression and Debility.—Camphor mixture, four ounces; distilled water, an ounce and a half; carbonate of ammonia, twelve grains; compound tincture of cinnamon, and tincture of ginger, each one drachm; syrup of ginger, two drachms; mix. The dose is three tablespoonfuls twice or thrice a day.

Fever Mixture.—Subcarbonate of potash, two drachms; purified nitre, thirty grains; camphor mixture, six ounces; syrup of saffron, three drachms; mix these ingredients. The dose is two tablespoonfuls, mixed with an equal quantity of water, and a tablespoonful of lemon-juice, or twenty-five grains of tartaric acid, and taken immediately. It may be repeated every three or four hours. This mixture has a cooling effect on all inflammatory fevers.

Gout and Rheumatism Mixture.—Calcined magnesia, four scruples; Epsom salts, six drachms; spearmint water, five ounces; vinegar of meadow saffron, and syrup of common saffron, of each half an ounce; mix. This medicine is to be given at the early stages of an attack of gout or rheumatism. The fourth part of it should be taken every three or four hours, till the bowels are freely acted upon; and it ought to be continued every morning, or every other morning, during the continuance of these diseases.

Camphor Balls.—These are used for rubbing on the hands, after washing them, to prevent chaps, &c. Melt of spermaceti three drachms, white wax four drachms, almond oil one ounce, and stir into the mixture three drachms of powdered camphor.

A Few Words on Pomades.—In making pomades it is essential that the principal ingredient, which consists of animal fat, should be *perfectly* fresh. Beef marrow is perhaps the purest, but bear's grease, veal fat, beef, and mutton, are also used in the preparation. To prepare the fat the following is the best mode:—Cut it into pieces, removing all flesh, skin, &c., and beat it in a mortar; put it into a tinned dish, and stand it in boiling water to melt the fat; strain through a hair sieve, and remove the scum. While cooling, constantly beat the fat up with a wooden spoon or druggist's spatula, to make it look white, or this can be done by adding a few grains of citric acid. To perfume the pomade, essence of lemon, bergamot, cloves, &c., are added when the fat is cold, in the proportion of two ounces of the essence to each four pounds of fat and lard.

Marrow Pomade.—Beef marrow, one ounce; castor oil, half an ounce; tincture of cantharides, one drachm; essential oil of bitter almonds and of lemon, of each twelve drops. This will be found very beneficial if the hair should show symptoms of falling off.

Pomade for Beautifying the Hair.—Oil of sweet almonds, one pint; spermaceti, one and a half ounce; purified lard, two ounces; melt with a gentle heat. When nearly cold, add scent as above, and pour into wide-mouthed pots or bottles.

Castor Oil Pomade.—Castor oil, four ounces; prepared lard, two ounces; white wax, six drachms; essence of bergamot, two drachms; oil of lavender, twenty drops; eau de Cologne, half a drachm. Keep stirring until quite cold.

Hair Washes.—To Cleanse and Strengthen the Hair.—Boil one pound of rosemary in two quarts of water; filter through blotting paper; then add one ounce of spirit of lavender and a quarter of an ounce of Naples soap, or salt of tartar.

To Remove Scurf and Curl the Hair.—Beat up the yolk of an egg in a pint of clear soft water; apply it to the hair in a warm state, and then wash the hair with warm water.

How to treat the Hair.—Dr. Cazenave, of the Hospital of St. Louis, Paris, gives the following clear instructions on the management of the hair of young girls. He says,—

"Pass a fine-tooth comb, at regular intervals, every twenty-four hours, through the hair, in order to keep it from matting or entangling; separate the hairs carefully and repeatedly, so as to allow the air to pass through them for several minutes; use a brush that will serve the double purpose of cleansing the scalp and gently stimulating the hair bulbs. Before going to bed, it will be desirable to part the hair evenly, so as to avoid false folds, or what is commonly called turning against the grain, which causes the hairs to break. Such are the usual and ordinary requirements as to the management of the hair. There is, on the other hand, a class of persons who carry to excess the dressing and adornment of the hair, especially those who are gifted with hair of the finest quality. Thus, for example, some females are in the habit, during the ordinary operations of the toilette, of dragging and twisting the hair, so as to almost draw the skin with it; the effect of which is, in the first instance, to break the hairs and fatigue the scalp, and finally to alter the bulb itself. The fine-tooth comb is also freely used, especially where the hair is divided—a part that the most particular attention seems to be bestowed upon. These separations, and the back of the neck, whence the hair is drawn, in females, towards the crown of the head, are the parts which first show signs of the decay or falling off of the hair."

The most healthy mode of dressing the hair of females, especially young ones, is to let the hair be as loose as

possible, or arranged in large bands, so as to allow the air to pass through them. It is a mistake to plait tightly the hair of children under eleven or twelve years of age. The process of plaiting more or less strains the hairs in their roots, by pulling them tight. The hair of girls should be cut at the ends, and allowed to curl freely.

Nails in Outdoor Work.—It is well known that iron nails, exposed to the effects of the weather, quickly become covered with rust, and in process of time the iron is converted into oxide of iron, and the nail ultimately wastes away, destroying at the same time the woodwork to which it has been attached. To obviate the inconvenience thus arising, some suggestions have been made not unworthy of the reader's attention, and which are founded on the necessity of covering the nails with some substance, that shall prevent or check the oxidation by more or less excluding the air. Tinned nails would for a considerable time resist the oxygen, but would not ultimately prevent the rusting. Painting the nails would secure the object in view so long as the paint continued to interpose between the iron and the air, and dipping the nails, when hot, into grease would have a similar effect. In both the latter modes, however, the paint or the grease would necessarily be rubbed off in the process of driving, and would protect chiefly that part of the nail which is exposed to the action of the atmosphere. The beneficial results would nevertheless continue for a considerable period, and the painting and greasing might from time to time be renewed.

Crochet a Tricoter.—This strong and solid-looking kind of crochet, is generally worked in wool for sofa pillows and blankets, couvrettes, antimacassars, &c. The hook used for this stitch is longer than the usual bone hook, and should have a button on the end; to begin—

1st Row. Make a chain as for ordinary crochet, leaving the last stitch of the chain to count as the first stitch of the second row.

2nd Row. Put the hook through the next loop of the chain, draw the wool through, leaving the loop on the hook; this is repeated till every loop of the chain is taken up, thus forming the second row.

3rd Row. Take the wool once round the hook, and draw it through two of the loops, once round again and through the loop just made, and the next one, and so on, drawing the wool through two loops at a time till they are all worked off.

4th Row. Put the hook into the first long perpendicular stitch that appears on the front of the work, draw the wool through, leaving the loops on the hook as in the second row, but taking care in every row to work the edge-stitch plain.

5th Row is the same as the third.

To narrow in this stitch miss the edge loop in each row; it is only suitable for straight work.

Counterpane in Crochet a Tricoter.—Make a chain of ten loops in coarse knitting cotton, and work eleven rows, then take bright scarlet Berlin wool, and crochet all round this square in double crochet, putting two stitches into every second loop, and one stitch of double crochet into the intermediate loop, working also four stitches at each corner; then work a row of treble crochet in the scarlet wool, into every second stitch, with two chain between each; when this has been worked all round the sides of the square, fasten off, and work a cross of scarlet and green in the centre, or any other little device. It is one advantage of this kind of crochet, that it can have a pattern worked in cross-stitch over it, which adds much to the rich appearance of the work.

Antimacassar, in Round Stars—Evans' Boar's Head cotton, No. 18, Penelope crochet hook of moderate size. Form a chain of ten into a round.

1st Row. Make five chain, one double crochet, into the round, two chain, one double, into the round, repeat till there are ten double stitches and the five chain; join into the third of these five chain.

2nd Row. Make a round of thirty-two stitches of single crochet, worked into the double, and chain stitches between them; join this.

3rd Row. Work three chain, one double, three chain, two double, into the first stitch of the round, two chain, two double, three chain, two double, into the fourth stitch; repeat this till there are eight points of three chain, with three stitches of the round between each point; join into third chain of the first point.

4th Row. Three chain, and five double, into the three chain of each point, this forms one star; these are joined at each of the points, and make a pretty and serviceable antimacassar. Finish off with fringe, knotted into the stars at the edge.

The Blanche Pattern for Edging.—A new and pretty trimming never before described. Fine Mignardise braid, Boar's Head cotton No. 24, or Ardern's No. 30, and a fine Penelope hook. Take up a loop on the braid, and join the cotton to it, work two chain, one single, into the next loop of the braid; repeat till five loops are taken up; make a chain of nine; purl into the third, stitch, three chain, one single, into next loop of braid; one chain, one single, into next loop of braid; repeat this until four loops are taken, then one chain. Turn back and take every back stitch of the eight stitches just made, one chain; turn again and take the back stitch of the last eight stitches. Count seven loops on the braid, make one chain, and then take up the eighth loop, and work it into the first of the eight stiches, one single, into the second of the eight stiches. Take the next loop of the braid into the third of the eight stitches, and so on, till four loops of the braid are worked in, with a single crochet between each. Make three chain, draw this through the purl, work three chain, one single, into the next loop of the braid, two chain, one single, into the loops of the braid, until five loops are taken up; this forms the inner side of one point. For the outer edge, take up the loop on the opposite side of the braid to the one taken up when commencing; work single crochet, into seven loops, without any stitch between, five chain, purl into fourth stitch, one chain, into next loop of braid; repeat this into next loop. Make a chain of seven, purl this into the second stitch, one chain, into next loop of braid, repeat this into seven loops, then five chain, purl into second stitch, one chain, into next loop; repeat this into next loop, thus making eleven little points; work single crochet into nine more loops of the braid, making ten loops taken up, one chain, take up the last purl made, two chain, into next loop of braid, one chain, into next purl, two chain, into next loop, seven chain, purl into second stitch, one chain into next loop, seven times repeated. The edge by which the lace is sewn on is done in the following manner:—Work single crochet into the first thirteen stitches made in the pattern, over the five loops; three chain, three double, into the purl, three chain, thirteen single as before. This will show the pattern, which is repeated till the required length is made. When evenly worked in fine braid and cotton, this forms a very pretty lace-like edging.

Winter Salads.—One of our arctic voyagers, who well knew the value of green vegetables as preventives of scurvy, ordered a few bags of mould to be shipped, intending to grow some salading in the ship during the severities of the arctic winter. One of his officers, thinking that this mould was a useless encumbrance, had it thrown overboard; and he was horrified when his commander inquired after the mould, in order to commence his operations in winter gardening.

Although many very good salads can be prepared without green vegetables, it is astonishing how seldom these are to be seen at English tables. Give a Frenchman a few cold potatoes, an egg or two, and a cruet stand, and he will prepare a salad, that forms a nutritious and palatable meal, out of ingredients on which an Englishman would almost starve. Cold haricots, beet, French

beans, &c., can all be used in a similar manner, and from many of these most delicious salads can be prepared.

Vinegar for Salads.—In making salads of all kinds, the best French vinegar is far superior to the English article made from malted grain. Even in the depth of winter a salad may be obtained with very little trouble. Watercresses are generally accessible, and mustard and eress can always be grown. We have seen very good dishes of green salading grown on plates, a piece of coarse flannel or old blanket being cut to fit the bottom of the plate; this is kept saturated with water, and mustard seed is sprinkled thickly on the top; if kept in a warm place (light is not necessary), it will germinate, and when an inch and a half or two inches high may be cut, and will be found far superior in flavour to the coarse rape which too many of the greengrocers sell as a substitute for mustard, because the seed is a little cheaper to purchase in the first instance. Mustard seeds may be grown in a warm room at all periods of the year.

Red Cabbage Salad.—Cut a head of red eabbage into thin shreds; pour boiling water over it for fifteen minutes, let it cool; drain off the water, and lay it in a basin with a little salt and about a wineglassful of vinegar. Let it lie in this for two or three hours. Cut up a large head of celery into diee: pour boiling water over it for ten minutes: drain, and when it is cold, mix it with the cabbage in a salad bowl, adding three tablespoonfuls of oil, with half a teaspoonful of pepper, and a teaspoonful of mustard powder mixed up in it. Mix all well together, and serve.

Beetroot Salad.—No salad can surpass one made of beetroot and Spanish onion, both boiled, and allowed to get cold; then eut in sliees, whieh are arranged alternately on a dish, one sliee overlapping the other, and seasoned with salt, pepper, vinegar, and oil.

Haricots Salad.—Take a pint of the best and largest white haricots, well boiled; sprinkle over them a teaspoonful of salt, and half the quantity of pepper; add a very little finely chopped onion, or a few drops of shalot vinegar, a tablespoonful of vinegar, two of oil, a sprinkling of very finely chopped parsley. Stir together, and serve.

Cold French Beans may be served in the same manner as haricots, a little chopped tarragon being added, or tarragon vinegar used, either wholly or partly, in place of plain vinegar.

A French Salad.—Chop three anchovies, a shalot, and some parsley quite small; put them into a bowl, with two tablespoonfuls of vinegar, one of oil, some mustard and salt. When well mixed, add by degrees cold roast or boiled meat, in thin slices, put in few at a time, not exceeding two or three inches long. Shake them in the seasoning and then put more, eover the bowl, and let the salad be prepared three hours before it is eaten. Garnish with parsley and slices of the fat.

Potato Salad.—Do not regard eold potatoes as waste, but cut them into slices, and dress with pepper, salt, oil, and vinegar. A little parsley chopped may be added. This forms an excellent salad for the supper-table.

A Capital Salad.—Cut into small portions an equal weight of onions, cucumbers, and apples. Put them into a salad bowl, and strew them with salt and cayenne pepper. Add a wineglassful of good sherry, and the same of vinegar. This salad can be used at once.

Gouffé, in his most magnificent cookery book, gives several directions for making salads, two of which we here transeribe, as being not usually known.

German Salad.—Blaneh one pound of sauerkraut in boiling water for five minutes, cool, and drain it well. Throw one pound of red pickled cabbage into eold water, drain, and cut it with the sauerkraut into thin shreds, and put the whole into a basin; chop two onions very fine, blanch, drain, and add them to the sauerkraut, together with one ounce of grated horseradish, and a

tablespoonful of chopped chervil. Season with salt, pepper, six tablespoonfuls of oil, and one tablespoonful of vinegar. Taste for the seasoning, and dish the salad.

Swedish Salad.—Wash and trim a pickled herring, cut it into small dice, and put it in a basin. Take the same quantity of cold roast beef, boiled potatoes, beetroot, and russet apples, and four anchovies, previously steeped in water; cut the whole into small dice, and add to the cut herring, along with one tablespoonful of well-drained capers, one tablespoonful of chopped gherkins, one hard-boiled egg chopped fine, two tablespoonfuls of chopped chervil, one tablespoonful of chopped tarragon, and twenty turned olives. Season with salt, pepper, oil, and vinegar, and mix. Put the whole into a salad bowl, and lay two dozen freshly opened oysters on the top. This salad should be highly seasoned.

Property of Married Women.—Various circumstances have long concurred to point out the absolute necessity of legislation on this subject, and the Act of Parliament which has recently passed will, we doubt not, be productive of most beneficial results, by furnishing respectable married women with legal protection against the cruelty and injustice to which they are too often exposed. The measure, indeed, can hardly fail to be beneficial, not only to the wife and her children, but even to the husband himself. The Act, which is entitled "The Married Women's Property Act, 1870," declares that "it is desirable to amend the law of property and contract with respect to married women." The following is an abstract:—

I. The earnings of any married woman, in any occupation, money, or property acquired by her, by the exercise of skill, and all investments of such money or property, shall be deemed her separate property, and shall be independent of her husband.

II. Deposits in savings banks, and annuities granted by the Commissioners for the reduction of the National Debt, in the name of a married woman (or a woman who may marry after such deposit or grant), shall be deemed her separate property.

III. A woman married, or about to be married, may have any property in the public stocks or funds to which she is entitled, or which she is about to acquire, transferred to her own name, or her intended name, as her separate property.

IV. & V. The same provision is made as to shares in any joint stock company, or in any industrial and provident society, or any other society.

VI. Nothing in the act shall give validity to deposits or investments of moneys of the husband as against his creditors.

VII. A married woman becoming entitled to any personal property, as next of kin, or to any sum of money not exceeding £200, under a deed or will, shall be entitled to such property for her separate use.

VIII. Freehold, copyhold, or customary-hold property, descending to any woman married after this Act, shall belong to her for her own separate use.

IX. In questions between husband and wife as to property declared by this Act to be the separate property of the wife, either party may apply to the Court of Chancery in England or Ireland, or in England to the judge of the County Court of the district in which either resides.

X. A married woman may effect a policy of insurance on her own life, or that of her husband, and such policy shall be as valid as if made with an unmarried woman.

XI. A policy of insurance effected by any married man on his own life, for the benefit of his wife and children, shall not be subject to the control of the husband or his creditors, and shall not be a part of his estate.

XII. A married woman shall be entitled to maintain an action in her own name for recovery of wages, &c., which are her separate property, either under this Act, or in virtue of a writing under the husband's hand before her marriage.

XIII. A married woman, having separate property, whose husband becomes chargeable to any parish, shall be liable to the parish for the maintenance of her husband.

XIV. A married woman, having separate property, shall be subject to the same liability as a widow for the maintenance of her children, and nothing in the Act shall relieve the husband from any liability at present imposed on him to maintain her children.

The Act does not extend to Scotland.

It is proper to remind our readers that the above is only a summary of the Act, and that those who are specially interested in it, ought both to examine the Act itself, and in order to avoid all misconception, be governed by the opinion of a judicious solicitor.

Cements.—How often does the mistress of the house lament that, owing to the carelessness of a domestic, her favourite service of china is "broken," by the fracture of a cup or saucer, or her set of wineglasses are minus one or more of their number, from the same cause. In our "Maxims for Young Housekeepers" (see page 315) we insist on the servant *at once* reporting any breakage, as, in very many instances, the mischief may be remedied, although, of course, no skill can ever restore the broken article to its original state. We give a few effective receipts for making cements, all of which are taken from the work of a practical chemist; and at page 58, will be found "Coaguline," a most excellent cement for all kinds of broken articles.

Cement for Glass and Metals.—An Indian receipt. Dissolve five or six pieces of gum mastic, each about the size of a large pea, in just as much spirit as will render it liquid. Soften some isinglass by steeping it in water; having dried it, dissolve as much of it in good brandy as will fill a two-ounce phial; add two small bits of gum ammoniacum, previously rubbing them until they are dissolved. Mix the two solutions; keep in a close phial, and when it is to be used set the phial in boiling water.

German Cement for Glass or Earthenware, &c.—Take two parts of gum shellac, one part of Venice turpentine; heat them together in an iron pot, taking care to keep the lid quite close, as the turpentine is very inflammable. When partially cool form into sticks; when wanted for use melt near a gentle fire.

Curd Cement for all kinds of Earthenware.—Add half a pint of vinegar to half a pint of skimmed milk; mix the curd with the whites of five eggs, well beaten, and sufficient powdered quicklime to form a paste. This cement will resist water and a moderate degree of heat.

A most useful Cement for Joining any Material.—Take of orange shellac, bruised, four ounces; highly rectified spirit of wine, three ounces. Set the mixture in a warm place, frequently shaking it till the whole is dissolved. Wood naptha may be substituted for the spirit of wine, but some object to the unpleasantness of the naptha.

Dr. Ure's Diamond Cement.—Take one ounce of isinglass, six ounces of distilled water, boiled down to three ounces, and an ounce and a half of rectified spirit. Boil for two minutes, strain, and add, while hot, half an ounce of a milky emulsion of ammoniac, and five drachms of tincture of gum mastic. This receipt is by the celebrated author of the "Dictionary of Chemistry."

The Truffle.—This is a subterraneous fungus indigenous to several parts of Great Britain, but most common in the downs of Wiltshire, Hampshire, and Kent. They grow in clusters, several inches from the surface of the soil. Their position is discovered by means of dogs specially trained for the purpose. The truffle is of a globular shape, the size of a hen's egg. It has no root, and is either of a dark colour, or whitish, with an uneven surface. Like the mushroom, truffles are used in stuffings, gravies, and other highly seasoned culinary preparations. An attempt has been made to cultivate the truffle artificially in Germany.

St. Valentine's Day.

14th February.

THERE'S a flutter in the kitchen.
There's a tremor in the hall,
The nursery's revolting;
Revolution reigns o'er all.

All the servants have struck work; and as
They're "Unionists" each one:
They'll all hold out, at least, until
The sinking of the sun.

A scented missive has inflamed
The soul of Mary-Hann,
It bore a heart transfixed; and came
From Lord Eyejink's young man.

And Halfred, who for whiskers,
And for calves—there is no other;
Is the elected Valentine of her
Who owns "The George" as brother.

* * * * * *

O Arcadians of the Kitchen,
I admire your simple ways,
Your loves so unconventional,
Deserve my happiest lays.

But loftier themes inspire me—
In the Drawing-room above
Lady Uivienne d'Escutcheon talks
With Mr. Banks of love.

The lady hesitates; the swain
His bribe for marriage raises,
He's offering thousands ten a year,
With jewels and post-chaises.

Then, *carte-blanche* at Stagg and Mantle's, he
The high-born maid assures.
She wavers—smiles—then whispers,
"It's settled. Banks, I'm yours."

D. MURRAY SMITH.

The Month of February.

"Then came old February sitting
In an old waggon, for he could not ride,
Drawn of two fishes for the season fitting
Which through the flood before did softly slide
And swim away; yet had he by his side
His plough and harness fit to till the ground,
And tools to prune the trees, before the pride
Of hasting prime did make them bourgeon wide." *Spenser.*

February, the second of the two months introduced into the year by Numa Pompilius, is the shortest month in the year, consisting of only twenty-eight days, excepting in leap years, when an additional day is added. The name is supposed to be derived from the ceremonies of expiation and purification which, in pagan Rome, took place in this month, "Februare" signifying to expiate. It is a doubtful question whether the festival of the "Purification of the Blessed Virgin," which is held on the second of February, or Candlemas day, is not an engrafting of a Christian festival on the old Roman custom. Candlemas is so called from the ceremony of blessing candles, which takes place every year in the chapel of the Quirinal, where the Pope himself officiates, being carried in procession, followed by the cardinals and great dignitaries, who hold the lighted candles which have just been blessed. This custom is very ancient, and was, at one time, universal throughout all Christendom; indeed, we find traces of it in the early literature of most European nations. The poet Herbert refers to the custom, Herrick also speaks of the taking down of the Christmas decorations on Candlemas-eve. In Scotland there were foot-ball matches on this day, one of which created considerable amusement at Jedburgh; the ball was thrown into the river Jed, which is very shallow near the town, and the game was concluded in the water. An old Scottish rhyme thus expresses a popular superstition:—

"If Candlemas day be dry and fair,
The half of winter's to come and mair;
If Candlemas day be wet and foul,
The half of winter's gane at yule."

The most celebrated day in February is certainly the 14th, dedicated to St. Valentine. As to the connection that this martyred saint had with the sending of valentines, there appears to be no tradition; even the observances of the day, formerly so important, have now degenerated into the sending of illuminated cards and sachets from the sentimental, and anonymous quizzing letters from facetious valentines. In Sir Walter Scott's novel of the "Fair Maid of Perth," the customs of St. Valentine's day in Scotland are spoken of, and in that most interesting volume, "Pepys' Diary," some very curious and amusing incidents relating to it are also mentioned.

February was called by the Saxons "Sprout Kale," from the sprouting of cabbage at this time, and also Solmonath, owing to the more frequent appearance of the sun, and the visibly increased length of the days. The snowdrop is called the "Fair maid of February," and the crocus is dedicated to St. Valentine. These, with the daisy, (the flower of St. Margaret, and which bears her name in France), the bright yellow primrose, the coltsfoot, and the graceful tassels of the hazel, give the first promise of the coming spring.

The Cook's Calendar for February.—Fish in Season.—Salmon, trout, turbot, eels, soles, smelts, whitings, skate, sturgeon, perch, tench, carp, herrings, crabs, lobsters, prawns, crayfish, oysters, and shrimps.

Meat in Season. — Beef, veal, mutton, house lamb, and pork.

Poultry in Season. — Turkeys, capons, chickens, ducklings, fowls, guinea fowls, pigeons.

Game in Season.—Hares, rabbits, snipe, wild duck, teal, widgeon, woodcock, plover, wildgoose.

Vegetables in Season.—Cabbage, spinach, beets, celery, parsnips, carrots, lettuce, turnips, small salad, forced sea-kale, asparagus, and mushrooms.

Fruits in Season.—Apples, pears, walnuts, oranges, dried figs, dates, and forced strawberries.

Gardener's Calendar for February.—The frost will have broken up the earth pretty well, and attention should now be directed to forming beds for early vegetables. Plant out cabbages for early use; sow peas and beans abundantly; also radishes, lettuce, spinach, and small salad; begin the spring planting of potatoes; plant out cuttings of gooseberries, currants, and raspberries; finish pruning vines; fork over and top-dress borders; rake or hoe over beds containing bulbs, which will now be putting their heads above ground, and must be assisted by keeping the surface loose and friable by constant rakings; sow anemone seed and plant anemones and ranunculus roots in sand, if the season is mild and open.

Prepare the beds for flowering plants, such as Tom Thumb geraniums, calceolarias, verbenas, and fuchsias, and prepare these plants for being put out, by giving them as much air as possible, at the same time keeping them carefully secured from frost; top-dress auriculas with well-rotted cow-dung and rough sand; stir up the earth between the bulbs in the tulip beds and cover them equally from rain and frost; begin to sow hardy and half hardy annuals in pans, in a gentle heat, for future transplanting; put some of the choicest dahlias in pots, in a light mould, and sink them in a hot bed; prune one half your roses, leaving the others to be done in March; graft some for standards of the prunings of your choice sorts. China and climbing roses generally require but little pruning; seek for slugs and grubs, and attend to the lawns, gravel walks, and shrubberies; watch hyacinths grown in the house in glasses; change the water, or, rather, renew it every week, taking care that the water added is of the same temperature as that in the glasses; many kinds of fuchsias may now be re-potted, which should be done on a fine moist day; they will soon begin to push out the young branches for flowering.

A Few tried Receipts for Jellies, Creams, Custards, &c.—Calves'-feet Jelly.—Boil four calves-feet or cow-heels in two gallons of water until it is reduced to two quarts; strain it, and when cold, skim off the fat; then put the jelly to boil, with a pint of sherry, a glass of good brandy, the peel and juice of three lemons, enough loaf-sugar to sweeten it, and the whites and *shells* of six eggs, well-beaten. Stir all together till it comes to a boil; let it boil quickly for a few minutes, then strain it through a flannel jelly-bag until it is quite clear. A very little saffron boiled with it gives a rich colour.

Orange Jelly.—Squeeze the juice from ten sweet and one Seville orange, add the juice of two and the rind of one lemon pared thin, loaf-sugar enough to sweeten the juice, one quart of water, and four ounces of isinglass. Boil all these ingredients for a few minutes, then strain through a jelly-bag till clear, and put it into shapes. Add a little saffron if the colour is too pale. A glass or two of good brandy is an improvement.

Jelly made from Gelatine.—Put an ounce and a half of gelatine into a pint of cold water, with the rinds and juice of three lemons, the night before it is required. Next morning, pour over it a pint of boiling water, half a pint of dark brown sherry, the whites and *shells* of three eggs well beaten, and sufficient loaf-sugar to sweeten the whole. Boil without stirring for ten minutes, then strain through a jelly-bag. This will make a quart of excellent jelly.

Claret Jelly.—Dissolve an ounce and quarter of isinglass and half a pound of loaf-sugar in half a pint of water; add a pint of good claret, a wineglassful of brandy, and half that quantity of maraschino; strain through a jelly-bag and put into a mould.

Sago Jelly.—Boil a teacupful of sago in three pints and a half of water, till quite thick; when cold, add a pint of raspberry-juice, pressed from fresh fruit, or half the quantity of raspberry-syrup; add enough loaf-sugar to sweeten it, boil it quickly for five minutes, and put it into a shape which has been steeped in cold water; pour a little cream over the jelly in the dish.

Port Wine Jelly.—Pour a bottle of port on two ounces of isinglass, with a little grated nutmeg and two ounces of sugar-candy. After twelve hours, put the whole into a jug with the quarter of a lemon in thin slices; tie it over with paper, and set it for an hour or so in a saucepan of boiling water. Two wineglassfuls is sufficient at one time. It is better to take it warm than cold.

Marble Cream.—Sweeten to taste a pint of thick rich sweet cream, whisk it to a froth, and add half a pint of well-sweetened raspberry-juice; dissolve an ounce and half of isinglass in as little water as possible, and while warm pour it on the cream. Whisk the whole together and put it into moulds; it will fill two of the ordinary size.

Lemon Cream.—Take a pint of thick cream, and put to it the yolks of two eggs well beaten, four ounces of fine sugar, and the thin rind of a lemon. Boil it up, then stir it till almost cold; put the juice of a lemon in a dish or bowl, and put the cream upon it, stirring it till quite cold.

Sponge Cream.—Mix over-night half an ounce of isinglass, one wineglassful of sherry, and two ditto of water. Let these stand till morning, then boil them till the isinglass is dissolved, and strain through a piece of muslin into a pint of good thick cream, to which two ounces of sifted sugar have been added. Stir gently for a few minutes, and pour all into the mould, until set sufficiently to turn out.

Italian Cream.—Rub the rind of a lemon on a lump of sugar, and scrape it into a tolerably deep pan. Add the juice of two lemons, three tablespoonfuls of good brandy, and three quarters of a pint of thick sweet cream. Sweeten to taste with powdered sugar, and whisk the whole to a thick froth. Lastly, stir in three quarters of an ounce of dissolved isinglass. Put all these ingre-

dients into a cool mould, and it will turn out in an hour.

Italian Cream. — Another receipt for this will be found at page 48.

Coffee Cream. —Boil a quart of cream and put it to cool, make some coffee very strong, and put it to cool; sweeten it with sugar-candy; boil half an ounce of isinglass in a little cream, then put the coffee and cream into a deep pan, with a glass of brandy and sugar sufficient to make it sweet; whisk it up. When it begins to get thick, put in the isinglass; keep on whisking it. When quite thick fill the cups.

Chocolate may be used instead of coffee, and it will be much richer.

Caledonian Cream.—Two ounces of raspberry jam or jelly, two ounces of red currant jelly, two ounces of sifted loaf sugar, and the whites of two eggs; put these into a bowl, and beat with a spoon for three quarters of an hour. It makes a very pretty dish for supper.

French Custard.—Flavour a quart of milk with about half the peel of a small lemon, pared thin, and sweeten to taste. Boil it and let it become quite cold, then blend with it three dessertspoonfuls of fine flour and two eggs well beaten. Simmer till of a proper thickness, stirring it the whole time. Pour it into cups.

Lemon Custard.—Squeeze the juice of three lemons on half a pound of loaf sugar; beat the yolks of eight eggs and boil them in three quarters of a pint of milk till just thick; pour over the sugar and lemon-juice; mix all well together and add a teaspoonful of essence of lemon. This is an excellent custard, if the juice is not allowed to curdle the milk and eggs, by being added to them when too hot.

Lemon Solid.—Squeeze the juice of a lemon into the glass dish in which it is to be sent to table, sweeten a pint of thick cream, boil it for a few minutes; then put it while boiling hot into a China tea-pot. Pour it from some distance into the dish, so as to make it froth up; when cold, stick it over with blanched almonds.

Lemon Sponge.—Put three quarters of an ounce of isinglass into a pint of cold water, let it stand a few minutes before dissolving over the fire, then add three quarters of a pound of loaf-sugar, the juice of three lemons, and the thinly-pared rinds of two. Boil all together for five minutes, then strain and let it stand till almost cold; beat the whites of two eggs to a froth, add them to the sponge, and whisk for about ten minutes. It should be put lightly into a glass dish.

Lemon Honeycomb.—Sweeten the juice of a lemon to taste and pour it into the dish you serve it in; mix the white of an egg, beaten with a pint of rich cream and a little sugar; whisk it, and as the froth rises put it on the lemon-juice. Let this be done the day it is required to be served.

Moonshine.—Dissolve three quarters of an ounce of isinglass in a pint of boiling water, add half a pound of loaf-sugar, and the rind of two lemons pared very thin, boil ten minutes, then strain the whole, while hot, through a hair sieve; add the juice of the two lemons, and when the mixture is nearly cold, whisk it till it looks like snow. Put it in a mould; it will turn out next day.

Whipped Froth, for Trifles, Tarts, &c.—Whip briskly the whites of six fresh eggs, putting in very gradually two tablespoonfuls of finely powdered and sifted sugar, with a few drops of ratafia or lemon essence, whisk till quite stiff; it will stand for two days.

New Stamp Act, 1870.—This Act comes into operation on the first of January, 1871. Its purpose is to grant certain stamp duties in lieu of duties of the same kind now payable under various Acts, and to consolidate and amend provisions relating thereto. It contains 128 sections, and a long schedule relating to a variety of duties, penalties, exemptions, &c. Omitting such matters as are of comparatively rare occurrence—for which we refer our readers to the Act itself,—we shall mention a few of the particulars more frequently claiming their attention.

General Regulations. — Under these we find various provisions made by which the Commissioners of Inland Revenue have the power of securing the payment of duty. "All public officers having in their custody any rolls, books, papers, documents, or proceedings, the inspection whereof may tend to secure any duty, or to the proof or discovery of any fraud or omission in relation to any duty," are bound to allow all such documents to be inspected by any person duly authorized by the Commissioners. Every person refusing to permit this inspection shall for each refusal forfeit £10. If any person whose office it is to enrol, register, or enter in any rolls, &c., any instrument chargeable with any duty, enrols, registers, or enters any such instrument not being duly stamped, he shall forfeit £10. The first of these regulations will, as our readers may perceive, bear an important relation to the amount of income tax that may be chargeable; the second regulation will render it compulsory that some documents used in banking business be in future duly stamped. Another regulation renders liable to a penalty of £50 any person who fraudulently removes any adhesive stamps, &c.

Special Regulations.—Under these an agreement or memorandum of agreement is liable to a duty of 6d., denoted by an adhesive stamp, to be cancelled by the person by whom the agreement is first executed; a bill of exchange includes all drafts, orders, cheques, letters of credit, &c. (except bank notes), entitling any person to payment by any other person of any sum of money. A promissory note means any document (except a bank note) containing a promise to pay any sum of money. The fixed duty of one penny on a bill of exchange may be denoted by an adhesive stamp, to be cancelled by the person who signs the bill; and the *ad valorem* duties on bills and promissory notes are to be denoted by adhesive stamps; and the non-cancelling of the stamp when it is necessary, the issuing of bills and promissory notes unstamped, or on improper stamps, incur certain penalties. Unqualified persons who draw or prepare any instruments relating to real or personal estate, &c., render themselves liable to a penalty of £50. The duty of one penny is to be charged on a certified copy or extract from any register of births, baptisms, marriages, deaths, and burials: the duty is to be denoted by an adhesive stamp, to be cancelled by the person by whom the copy is signed before he delivers it. A writing containing an order, &c., from the owner of stock to any company or to any banker to pay dividends to any person is not chargeable with duty as a power of attorney. The word "receipt" means any note or memorandum whereby any money amounting to £2 or upwards on any bill or promissory note for £2 or upwards is acknowledged to have been received; or any debt or part of a debt of the amount of £2 or upwards is acknowledged to have been settled. Such receipts are to be charged with a duty of one penny, denoted by an adhesive stamp, to be cancelled by the person giving it; and to give any receipt liable to duty not stamped, or to refuse to give a receipt duly stamped, or to evade the duty by giving a receipt for a sum less than £2, incurs a penalty of £10. Having mentioned these particulars, we may state that, as some of our readers may require to study the Act itself as to the points we have not thought it requisite to refer to, the document can be procured at the price of one and sixpence through any bookseller.

Hints on the Art of Fencing.—Fencing is an art of great antiquity. It consists of the use of the small-sword, which is employed not for cutting as the broadsword, but for thrusting. The sword used has a straight and narrow blade, and about thirty-two inches in length.

I. Utility of the Art.—How valuable soever skill in the use of the rapier may be, the art of fencing is of very great excellence; and, as a form of bodily exercise, it is highly conducive

to health and the development of physical strength. On this subject the following opinions, expressed by several competent judges, are well worthy the attention of the reader.

Sir Anthony Carlisle thus speaks:—"According to my judgment the exercise of fencing tends to promote bodily health and the development of the athletic powers. It is likewise apparent that the attitudes and exertions of fencing are conducive to the manly forms and muscular energies of the human figure."

Dr. Clive also says:—"Muscular exertion is essential in perfecting the form of the body, and those exercises which require the use of the greatest number of muscles are most conducive to this end. Fencing causes more muscles to act at the same time than most other exercises. It promotes the expansion of the chest and improves respiration, whereby the functions of the most important organs of the body are more perfectly performed."

Sir Everard Home makes the following remarks on the same subject:—"Of all the different modes in which the body can be exercised, there is none, in my judgment, that is capable of giving strength and velocity, as well as precision, to the action of all the voluntary muscles of the body, in an equal degree as the practice of fencing, and none more conducive to bodily health."

II. Implements for Fencing.—In addition to the foil—which is a substitute for the sword—a well-padded glove is required for the protection of the hand, and a wire mask to protect the face from an accidental wound. The body ought to be protected by a stout jacket with a leather collar; and the foils are usually tipped with a button, which affords a further safeguard against any unintentional injury.

III. Initiatory Movements in Fencing.—These are various. The first which the beginner has to learn is the mode of placing himself in a position called "the guard," from which all other movements, of whatever kind, may be said to originate. *The first position* requires that the knees are straight, the feet at right angles to each other, heel to heel, the right foot and right side and face directed to the adversary, and the arms hanging down by the side, and the left hand holding the foil a few inches below the guard. *The second position*, which is adapted to attack or defence, requires that the knees be bent, and the right leg advanced before the left, the right side presented to the opponent, and the arm reached forward with the foil, but slightly bent at the elbow. *The Lunge.* This is an important movement, and somewhat difficult to execute successfully. It is the attitude of making a thrust at the adversary. The right arm is extended straight from the shoulder, the foil and arm being on the same level; the right foot is advanced about eighteen inches; the left foot remains immovable, and the left arm and hand slope downwards towards the left knee. *The Recover.* This movement immediately succeeds the lunge. In it the left arm is quickly raised into its original position, the right arm drawn in and the left knee bent; the fencer, in a word, places himself as in the second position.

Such are the primary movements in the art of fencing. These must be carefully practised, so that some proficiency may be obtained, before the learner attempts the more delicate and difficult movements of attack and defence. Indeed the possession of some skill and accuracy in the positions and movements already referred to, is absolutely indispensable to success in the more advanced branches of the art.

Hints on Home Decoration.—Wax Flowers.—These are certainly the most beautiful substitutes for natural flowers when it is impossible to obtain the latter. Many of these imitations are exceedingly like the natural plant in all but perfume, and the manufacture of them affords an opportunity for the exercise of great neatness and good taste, as well as observation of the nature and structure of the flowers which it is intended to

represent. But very little instruction is necessary in learning to make wax-flowers; to follow nature as closely as possible will be found the best advice, and any instructions will only refer to the wax requisite to be purchased, the few tools needed for the manufacture, and the mode of using these tools.

The Wax.—This is sold ready prepared in small sheets of various thicknesses and of almost every shade to be seen in nature, and those that are not exactly the tint required can be readily made to assume it by the help of powder colours. To begin a group of wax flowers, it will be enough to procure one dozen sheets each of Nos. 1, 2, and 3 in the best white wax; three shades of yellow wax, six sheets of each; two shades of pink, six sheets of each; six or seven shades of green, from the light green of the primrose leaf to laurel and myrtle green, six sheets of each.

The Colours are sold in little bottles; the most useful are carmine, three shades of blue—viz., cobalt, Prussian blue, and French ultramarine,—three shades of chrome yellow, flake white, burnt umber, a bottle of bloom, and one of liquid transparent gall.

The Implements.—A pair of small finely-pointed scissors, which must never be used for any other purpose, a palette knife, six small sable brushes, some small saucers for mixing the colours, boxwood tools with smooth round tops for rolling the wax, steel pins with glass heads for the same purpose, wire covered with green in three sizes, for the stems, and two shades of green down. Some people use tin cutters for the leaves, similar to paste cutters, which can be bought at any of the London bazaars, but though these cutters are convenient, they are not absolutely necessary: we have seen most beautiful wax flowers cut merely from a tracing of the natural leaf, by laying it on a piece of white paper, and tracing the outline with a pencil.

To make a Camellia Japonica.—This is one of the easiest flowers to make, the leaves being large and of four sizes only. If the cutters are not available, take a large camellia, study well its appearance, the way in which the leaves grow, and their sizes; then pull off one of the most perfectly-shaped of the large outer leaves, lay it on a bit of white paper, and trace the edge round with a pencil. Do the same with the smaller leaves; then cut out these diagrams, take a sheet of the thickest white wax, lay the diagram on it, and cut out ten patterns or leaves of the largest size, eleven leaves of the next size, eleven of the third size, and eight of the fourth; take a piece eight inches long of strong green wire, make a ball the size of a large pea of white wax on the end of the wire; lay a leaf of the fourth size on the palm of the left hand, and with the head of the box-wood tool rub the edge of the leaf till it becomes thin; pinch and crumple it as the natural leaf is done; put a slight tint of yellow, as in the real leaf, and stick each leaf round the ball of wax, pressing it close; and when all the leaves are put on of this size, bind them with the parings of the wax. Follow on with the other leaves, making each row more open till the last and largest leaves, which almost lie back from the stem in a horizontal position. The Camellia Japonica is the largest and most wax-like of these flowers; the *C. Imbricata* has finely notched leaves, also white. A red camellia is made with pale yellow wax, which is painted over with carmine: this gives exactly the deep shade of the natural flower. The leaves of the rose are the same shape as those of the Camellia. For the green leaves it is best to buy artificial leaves of muslin, and coat them over with green wax the proper shade, taking care to preserve all the veins and markings in the wax surface. In fact, the closer the imitation of nature, the more beautiful the flower will be, therefore nature is the book to study; but those who wish for very excellent instruction, had better consult Mrs. Peachey, who has a high reputation as an instructress in the art of Wax flower making; and whose address, we believe, can be had at the Soho bazaar.

Cork Stands for Flowers, Ferns, &c.—There are few prettier ornaments for a sitting-room, than stands made from the first bark stripped from the cork trees, which is of no value for cork making. This has been recently introduced into this country for garden purposes, for which it has proved to be admirably adapted, more particularly for growing ferns, orchids, and other plants of a similar nature. In appearance it resembles moss-grown wood, and no doubt will supersede those stands in imitation of bark, made of terra cotta, now so much used for fern-cases, flower-stands, &c. Many of the prettiest and most graceful ferns will grow in a moderately warm room, without any glass over them ; and for these, the cork stands are particularly well suited, being light and porous, not only absorbing, but retaining moisture, which is so desirable for fern cultivation. A very beautiful and easily managed little fernery can be constructed in one of these stands. Let it be put in a window, with a southern or western aspect. Have a tin lining inside the stand, put plenty of "crocks" into the bottom, then fill it with a mixture of silver sand, decayed leaf mould, and, if possible, a little bog mould; do not sift this mould, or let it be too fine. Many ferns grow best in stones, old mortar, and rubbish. Round the edges of the stand may be put the *Ipsolipsis gracilis*, which is so graceful a plant as to deserve a place in every fernery. Of the taller ferns, *Pteris longifolia*, the tallest, *Pteris serrulata*, and *Pteris tremula*, there may be one each. An *Adiantum capilis veneris* and *Adiantum formosa*, with an *Athyrium felix fœmina*, one or two spleenworts, and an oak and beech fern, will be found sufficient for a tolerably large stand; and any spare corner may be filled up with the common *lycopodium* to be seen in most greenhouses, which will soon form a green carpet over all unoccupied spots, and add much to the beauty of the fernery. These ferns require but little care; they must be shaded from the sun and draughts, which are most prejudicial. In winter, water with milk-warm water, once a week; in summer, water every day, or every second day, as they appear to need it. In this way the ferns will grow luxuriantly, and form a most interesting as well as beautiful ornament in a drawing-room.*

Safety during Thunderstorms.—A correspondent has suggested to us that it might be useful to afford our readers some information on this subject, pointing out especially places and things to be avoided, and precautions to be taken, so as to ensure, as far as possible, personal security. We shall therefore quote the inquiries which our correspondent makes, and reply to them in the order in which they occur in his note ; believing that the discussion will not be without its interest to a large number of our intelligent readers. Prior, however, to giving our replies to the questions we refer to, we think it may conduce to the greater clearness of those, if, avoiding technicalities as much as possible, we preface what we have to say with a short statement as to electricity in the condition familiarly known as lightning.

It has been established by numerous experiments, that the electricity developed by means of an electric machine, is identical with the electricity in the earth and the atmosphere, and that the spark artificially produced is identical, however comparatively minute, with the phenomenon we call lightning, and that both are governed by exactly the same natural laws. It is found that if the conductor of an electric machine be insulated, that is to say, placed on some nonconducting substance, and then put into a negative condition, by being connected with the negative side of the electric machine, it will, because of that condition, receive electricity in the form of a spark, provided that some conducting substance in contact with the source of positive electricity be near enough to allow the spark to pass, that

* The cork and stands can be had of the London and Lisbon Cork Company, Upper Thames Street, London.

is to say, within what is called "striking distance." In this case the spark would pass into the conductor till an equilibrium took place, and the conductor, which we have supposed to be negative, was no longer in that condition, but possessed the same amount of latent electricity as surrounding objects. Now if a cloud be in a negative state, and insulated by being surrounded with dry air, it is like the supposed negative conductor,—in a condition to receive a spark from the earth; on the other hand, if the earth be negative, it is in a condition to receive a supply of electricity from a cloud; all that is requisite in either case being that there shall exist some conducting medium between the cloud and the earth, or that the two objects shall be sufficiently near each other to be within "striking distance;" in which case the spark or lightning will pass from one object to the other till the equilibrium is restored. Lightning, therefore, passes not only from the clouds to the earth, but from the earth to the clouds; in either instance taking its course through the best conductor that happens to be next the point where the tension or accumulation of electricity is greatest.

This brief statement is requisite in order to avoid repetition in replying to the questions we refer to, and because these imply that lightning proceeds only from the clouds. We shall now state the inquiries made, and furnish brief answers, taking them in the order in which they occur:—

I. Q. "Is it best to open doors and windows, or to shut them? Some persons open all doors and windows, to allow the electric fluid a free passage; others shut all doors and windows, to keep it all out of the house."

I. A. Whether the house be at the point where the electricity takes its departure to the clouds, or at that at which the electricity from the clouds enters the earth, the fluid is not deflected from its course by the circumstance of a door or window being shut or open. Even if the door were composed of solid iron, it would no more interpose a barrier to the passage of the electric agent, than if it were wide open.

II. Q. "Is it safe to sit near a window or near the fireplace?"

II. A. The window is not only as safe, but probably more safe than some other parts of the house. It is however less safe to sit near the fireplace. The chimney being the most prominent part of the house, is the point generally on which the lightning strikes, or by which it quits the earth. The grate, fender, and fireirons, and even the smoke in the chimney, may act in some slight degree as conductors, and if the chimney be the course down or up which the electricity passes, immediate proximity to it might involve injury, not so much from the direct stroke of the lightning, as from its indirect effects.

III Q. "If in bed, is it safer to remain there, or to get up and go below stairs?"

III. A. If the bed be as far as any other part of the room from the fireplace or its metallic furniture, it would probably be safer to remain in it during the storm. As to going downstairs, it has been recommended by some persons that a cellar, being below the surface of the earth, is the safest place of refuge, on the supposition that coming from the clouds the electricity would first expend itself on the surface of the earth, before touching things below it; this, however, is a popular error. As already mentioned, the lightning rises out of the earth as well as proceeds from the clouds; the cellar, therefore, or the ground floor, may accordingly, in some cases, be nearer the point at which the electricity ascends; and the effects are as violent at the place from which the electricity takes its departure, as at the place which it strikes on its arrival at the earth.

IV. Q. "Are looking-glasses in front of a window dangerous? Do they attract the lightning if the window is shut?"

IV. A. Looking-glasses are in no way the cause of danger, and certainly

do not attract the lightning, whether the window be closed or open. The amalgam at the back of a mirror, it is true, is a metallic substance; but it is too slight to be taken into account.

V. Q. "Are persons more secure lying down than standing erect?"

V. A. Lying down, as a general rule, is a safer position than an upright attitude, as will be seen from the following few remarks as to safety out of doors, subjoined to the necessarily very short replies as to security inside the house.

The same reason why proximity to the chimney and its iron or brass furniture is less safe than other places, is that which renders the immediate neighbourhood of trees out of doors insecure. The chimney and the tree are prominent objects, and act as conductors for the fluid. The tree is considerably more dangerous than the chimney, because it is so much higher and because its upper branches are all of them so many additional conductors. Moreover, the moist wood of a tree is a better conductor than the smoke of a chimney, or the chimney itself. Further, the tallest and largest trees are much less safe than such as are low and small; and, as people are naturally apt to take shelter from the rain during a thunderstorm under the largest and most umbrageous trees, it is found to be under such, chiefly, that they are struck with lightning.

To stand during a thunderstorm on high ground, where there are no large trees to act as conductors, is likewise unsafe. The human body is itself a good conductor, and by standing upright the danger is increased: a person in that attitude on elevated ground, may be higher than a very tall tree lower down, and may, on that account, form the very point on which the electricity strikes. If caught by a thunderstorm on elevated ground, the safest course, however inconvenient, is to lie down, instead of maintaining an erect posture, and thereby furnishing the electricity with a point on which to strike.

Food for Infants.—This subject possesses so much interest, and is so important, that a few hints as to the feeding of infants, and the aliments most fitted for them, will, we feel assured, prove highly acceptable to a large number of our readers. For the sake of greater clearness and precision, we shall subdivide the information we convey into separate topics.

1. The Mother's Milk.—Presuming that the mother is in vigorous health, the nutriment with which nature furnishes her for the use of her offspring, is better adapted to it than any artificial food can be; and an infant in good health will require nothing else for the first four months, unless the natural provision is deficient in quantity or defective in quality.

2. Reasons for giving other Aliments.—Circumstances frequently occur a few months after the infant's birth, which render it necessary and advisable not to depend entirely on the maternal supply. There may be too great a drain upon the mother's strength; it may be requisite for her to leave her infant for some hours; there may be a failure of the supply from illness or other causes; the quantity of milk may be deficient, or the quality of it may be deteriorated, so that the infant may not continue to thrive from the lack of sufficient nutrition. Any of such circumstances are sufficient to suggest the necessity of providing additional nourishment.

3. Choice of a Wet Nurse.—In those cases in which it is indispensable to employ a wet nurse, there are some considerations, by attention to which, the choice of a person best suited to the important office may be made. Vigorous health and soundness of constitution are, it is obvious, of primary moment, and ample evidence as to these conditions may be obtained from the appearance of the nurse herself, and the examination made by the medical attendant, while a sufficiency of good and wholesome food will have the salutary effect of maintaining her in health and vigour. But there are other con-

siderations which are too often overlooked, and which, when an opportunity occurs of making a careful selection, ought not to be ignored. These relate to the woman's state of mind and her temperament. A fretful, irritable, impatient temper is incompatible with being a good nurse, who ought to be of a mild and gentle disposition. It is remarkable, too, that a brunette supplies much richer milk than a blonde, although of equal age and equally cared for. The infant's capacity for taking its food corresponds in a great measure with its mother's temperament, and that of the nurse ought not to be widely dissimilar from that of the mother. If, however, the mother be very fair and delicate, the nurse, besides being robust, ought to be somewhat darker in complexion; but a very dark woman with black hair ought not to be chosen as the nurse of a child, whose mother's hair and complexion are of precisely an opposite character.

4. Substitutes for Human Milk. —In consequence of the abundance of oily and cheesy matter which cow's milk contains, it is not well adapted to form a substitute for human milk, although necessity, and the facility with which it can be obtained, leads to its frequent use. The milk of the goat and the ewe also abounds in caseine and butter, and are therefore still less adapted to the purpose than the milk of the cow. The milk of the ass and the mare approach much more nearly than any other to the consistence and composition of human milk. Neither of these kinds of milk, however, can be obtained with sufficient facility, and if other than human milk is employed it is generally that of the cow, which, however, can be diluted, or otherwise adapted to the purpose in view.

5. Milk of the Cow.—In adopting cow's milk for the food of an infant, it ought to be made to resemble the mother's milk as near as possible in composition. To this end, milk, water, and loaf sugar ought to be mixed, in the proportions of two-thirds of milk, one-third of water, and a small quantity of loaf sugar. According to the judicious Dr. Graham, "nothing but the milk thus prepared ought to be given, and very little, if anything else, for the second month." The nourishment thus given ought always to be administered at a degree of temperature equal, or nearly equal, to that of tho infant's body; and as the bottle employed for the purpose is furnished with a siphon-tube and an artificial nipple, the milk can be kept at a suitable temperature by immersing the bottle in water of the temperature of ninety-eight degrees.

Condensed Milk. — In referring to the subject of cow's milk, it is proper to direct the attention of our readers to the "Condensed milk" prepared in Switzerland, which, from its extreme purity, is specially adapted to be used in feeding infants. It is prepared from the finest and richest milk; it is entirely free from any kind of adulteration, and thus it possesses great claims on public attention; but, as we are speaking of the feeding of infants, we confine our remarks to the use of the Swiss condensed milk as suited in a peculiar manner to that purpose. Dr. Cuibourt, of the French Academy of Medicine, says, "Cow's milk, with the addition of one-fifth of its weight of water, and a little sugar, is as nearly as possible equal to woman's milk." The "Condensed milk," diluted with seven to nine parts of water, exactly answers this description; and as it is perfectly free from adulteration, and keeps sweet for a great length of time, without any tendency to sourness, and without undergoing any chemical change, it may, from these and other considerations, be truly said "that the condensed milk is superior as food for infants, even to the present ordinary milk." *

* The "Condensed milk" is prepared by the Anglo-Swiss Condensed Milk Company, at Cham, in the Canton of Zug. The milk, which contains in its natural state eighty-five per cent. of water, has a vastly greater quantity of water added when subjected to the roguery of the milkman.

VI. Additional Food.—According to Dr. Graham, already quoted, the infant, after the third month, may be fed daily by the addition to its usual diet of a small cup of beef tea and a crumb of bread. At the end of four months, it should be fed twice a day; once with bread and milk, or biscuit powder and milk, and once with light broth and bread. arrowroot, or rice. At the age of eight or nine months, it should be fed three times in twenty-four hours, and more solid food may be given; as a bread or rice pudding, or a boiled egg. Speaking of cows' milk as being by itself "too heavy" and too apt, from its tendency to acidity, to produce gripings and other disorders of the bowels in young children; "it will be useful," observes the same excellent authority, "to mix with it decoctions of animal substances; such as chicken or veal broth, or decoction of hartshorn shavings; of which last, two ounces should be boiled in a quart of water over a gentle fire till the whole is reduced to a pint; when, after it has become cold, it will be of the consistence of a light jelly. This mixed with about twice its quantity of cow's milk, with the addition of a little sugar, forms for young children a proper aliment."

We shall close these remarks by an extract from the "Manual of Domestic Economy," written for the Government training colleges by Mr. Tegetmeier. "All preparations containing butter, such as rusks, tops and bottoms, &c., are extremely objectionable food for infants; plain bread made into pap is also apt to turn sour in the stomach in consequence of being fermented. A much better food for very young children is plain household or seconds flour baked in a slow oven till it has acquired a light fawn colour; in this state its taste is agreeable, closely resembling that of biscuits; and, after having been rolled to crush the lumps, it is readily prepared for use by mixing it with cold water and boiling it for two or three minutes. In cases where it is necessary to render the food somewhat more relaxing, a coarser meal may be employed, or one-third of fine barley-meal added before baking. All pure starches, such as arrowroot and those farinaceous foods from which every portion of bran has been separated, are unfit for the entire support of children; the starches because they are almost entirely destitute of nitrogenous substances, and the farinaceous foods from the absence of those materials from which bones are formed."

The following are the directions for the preparation of food recommended by Baron Liebig: "Half an ounce of the best seconds wheaten flour, an equal weight of flour from pale malt, and seven grains of bicarbonate of potash, are mixed with one ounce of water and five ounces of cow's milk, and the whole heated over a gentle fire. As soon as the mixture begins to thicken, it is removed from the fire, stirred for four or five minutes, then heated again, when it becomes thin, and finally made to boil, and then strained to separate the bran of the malt flour. It is then ready for use. The preparation does not require any sugar to be added, as the malt converts the starch of the wheat into a kind of sugar which is exceedingly easy of digestion. There can be no doubt of the value of this food, but the trouble of preparation is an objection to its adoption; many chemists, however, prepare the materials ready for use, so that the weighing and straining are not required. In cases where it is preferred to prepare the ingredients at home, a common coffee mill kept exclusively for the purpose may be used to grind the malt."

Chapman's Entire Wheat.—Since the previous part of this article was put in type, our attention has been drawn to a new description of food suitable for infants, called "Chapman's Patent Prepared Entire Wheat Flour," and from the evidence of the "Lancet," and the analysis of an eminent chemist, Dr. Attfield, Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, this description of food "is incomparably

superior to arrowroot and other forms of starch, which contribute but little to the formation of bone or muscle."

Vingt et un.—This game may be played by two or more persons. At the commencement it is usual to determine who is to deal, as the deal is an advantage, and frequently is long possessed by the same player. The deal should be cut for, or, the cards being dealt round, the person who gets the first ace or the first knave obtains the privilege of dealing. The cards are to be given to the players one at a time, and when the first card is given, the stakes are to be mentioned before the second is seen, and when the second card is seen, and found to make a natural vingt-un, it must be at once declared and paid, and the dealer loses his deal, but if the dealer himself also obtains a natural vingt-un, he cuts himself in, and does not lose his deal. After the first card is dealt all round, and the stakes declared, it is optional with the dealer, after he has seen his own card, to double the stakes. When the dealer has given two cards, one at a time to each player, including himself, he asks each person in rotation, commencing with the eldest hand on the left, whether he stands or chooses another card, if the latter, a card must then be given from the top of the pack, and then another, or more if desired, till the points of the additional cards, along with those already dealt, exceed, or make twenty-one exactly, or such a number less than twenty-one as may be proper to stand upon. In any case in which the points exceed that number, these cards are at once to be thrown up, and the stakes paid to the dealer, who, in turn, is entitled to draw additional cards. On taking a vingt-un the dealer receives double stakes from all who stand the game, with the exception of those players who also have twenty-one, between whom there is, therefore, a drawn game. The dealer, unless a natural vingt-un occurs, pays single stakes to all whose numbers below twenty-one are higher than his own, and receives from those who have lower numbers. Those, however, whose numbers are similar to those of the dealer pay nothing, and receive nothing; but if the dealer draws more than twenty-one, he pays to all who have not thrown up.

Natural Vingt et un.—This term is employed whenever twenty-one is dealt in commencing to play. It ought to be declared at once; the possessor of it is entitled to the deal and to double stakes from the dealer. It may be proper here to state, that an ace may be counted either as one or as eleven, and every court card as ten; the rest of the pack, however, are counted according to their points.

The Pig.—The important place which the pig occupies in household economy renders a few remarks on the subject indispensable.

Various Breeds.—The most approved breeds are the Berkshire, the Essex, and the Chinese. The first fattens easily and rapidly, and sometimes attains a prodigious size. The last of the three kinds mentioned is comparatively small, but it fattens on less food, and grows fat with greater rapidity than any other variety. The Essex variety requires a greater proportion of food than the weight it attains to justifies, and is upon this wholly inferior to either of the other kinds we have mentioned. There are, however, several other kinds which are favourites in certain districts, such as the gigantic black and white breed of Cheshire, the piebald pigs of Shropshire and Sussex, and the white pigs of Suffolk and Hampshire. Perhaps the breed most commonly esteemed, both in England and Scotland, is a mixture of the Chinese with some of the larger British species.

How to Choose a Pig.—Whatever the breed may be, it is requisite, in order to make a judicious selection, to give attention to certain particulars, such as the following:—the loin and breast ought to be broad, so as to allow abundant scope for the functions of breathing, &c.; the bones ought to be small, and the joints fine; this affords

evidenee of high breeding, and the better a pig is bred the more rapidly will it come to maturity, and the more readily it will fatten; the feet should be firm and sound, the toes lying well together and pressing evenly upon the ground; the snout not too elongated but somewhat short and convex, rather than flat.

Hints on Feeding, &c.—A young pig intended for feeding and killing ought to be purchased at such an age as that it will be about sixteen months old at Christmas, the latter part of Deeember or the month of January being the best time for slaughtering, and the animal ought to be more than a year old. As to feeding, any refuse from the kitchen or garden, such as potato and turnip parings, eabbage leaves, table waste, will be found suitable, especially if grains from a distillery or barley dust can be added. As a general rule, the food ought to be ehiefly vegetable, and ought to be given frequently and in small quantities, that the animal may not become very hungry, this being sometimes prejudicial.

Hints on Fattening.—In Septembcr the process of fattening ought to be begun. The diet must of eourse be nourishing; but the feeding ought not to be eommenced too suddenly, lest a surfeit be the eonsequence. The finer the feeding the finer will be the pork or bacon. The best materials for feeding are barley and peasc meal, and if milk, either skimmed milk or buttermilk, be given with the meal, it will tend greatly to improve the quality of the meat. Potatoes are frequently employed for feeding, but the flesh of pigs so fed is not so solid or good as when the animal is supplied with harder food; the fat, too, is somewhat loose and flabby. In addition to the meal already referred to, a feed or two of eorn daily for a fortnight before the time of killing, together with ehurned or skimmed milk, will be found very effectual in improving the quality of the flesh. Boiled potatoes, mixed with a few handfuls of oatmeal, together with Swedish turnips, carrots, and broken corn, will also be found an excellent fattening diet, and can be procured at a very moderate expense. In a word, care should be taken to avoid foul feeding, and not to overfeed the animal; as much only should be given as ean be consumed at a meal, and the feeding ought to be regular, and with each supply a little salt should be given. Finally, let the pig be kept dry, clean, and warm. Washing the animal with soap and warm water, and rubbing it down with rough straw or a hard brush will conduce greatly to its health, and will eause it to fatten on a less quantity of food than when it is suffered to remain dirty, wet, and uncomfortable.

To pickle various Meats.—Pork. When the side of pork has had the hams taken off and the remainder eut into eonveniently sized pieces, let each one be rubbed with common salt, and then set to drain for twenty-four hours. Prepare a pickle as follows:—Boil seven pounds of eommon salt, two ounces of saltpetre, and a pound and a half of eoarse brown sugar in four gallons of water, boil till the seum (which should be skimmed off) eeases to rise, let it then stand till cold, pack the pork into a clean, deep tub, and pour the pickle over; in about six weeks pour off the pickle and boil it again, adding two ounces of sugar and half an ounce of saltpetre; this pickle will keep sweet for many months.

To Cure Bacon and Hams.—Rub the sides and hams well with eommon salt, let them lie for one day, then make the following mixture:—for every forty pounds weight of meat take half a pound of eommon salt, three quarters of a pound of bay salt, one ounce and a half of black pepper, half an ounce of allspiee, and two ounces of saltpetre, all ground very finely together. Rub the meat well with this mixture, and let it lie four days, then repeat the rubbing and let it lie two days; on the third day pour over it three pounds of treaele to the same quantity of meat, rub it three times a week for a month,

then hang up each piece to drain; when quite drained, smoke them, or if that is not convenient, rub them over with essence of tar, which will give a smoky flavour.

To Pickle Beef.—To one hundredweight of beef take four pounds of common salt, six ounces of salprunelle, six ounces of saltpetre, and a pound and a half of coarse sugar. Pound these all fine in a mortar, and then heat them over a slow fire; rub the meat with this mixture while it is as hot as the hand can bear, then pack the meat in an air-tight cask or tub; no water is to be used; the meat will be fit to cook in twelve days. Tongues are very good cured in this way. The pickle given for pork is also very good for beef and tongues.

Hambro' Pickle for Beef.—To four gallons of water add five pounds of salt, four ounces of saltpetre, and a pound of brown sugar; boil all together for two hours, and take off the scum as it rises. When cold put the meat into it; boil the pickle again at the end of six weeks, and then once every month; it will keep good for four or five months. Beef used out of this pickle is much more delicious than when dried or hung.

To make Brawn.—Take a large-sized pig's head, with the ears, a set of pettitoes, and two large cowheels. Wash and scrape the head very thoroughly, and if it has not been salted, lay it into strong brine with a little saltpetre in it for twenty-four hours. If the head has been cured, soak and wash it well in hot water, set it to boil with the feet and cowheel until all the bones will come out; take a brawn mould with a presser, such as are to be had at most of the ironmongers; put the head round the sides of the mould, and the feet and cowheel in the middle. Some people prefer to cut up all the meat into dice, but by either plan it eats equally well. Sprinkle a little pepper amongst the meat, and lay a bay leaf or two on the top; put a little of the liquor the head was boiled in over the meat, and screw down the presser. Bake it for half an hour; then let it stand till quite cold and firm.

Grafting.—This operation is performed for the purpose of propagating the choicer descriptions of fruit trees and large shrubs, and in principle is the same as the budding of roses, which has been already noticed.

A shoot or scion is taken from one tree and inserted in the stem or some part of another, which is called the stock, in such a manner that they unite and produce the fruit, or some other property of the plant from which the scion is taken. By this process varieties of fruit are kept from degenerating, which they very frequently do if they are grown from seed. It also hastens the period of fruit-bearing in the case of young stocks, and is frequently the means of restoring fertility in the case of trees, the fruitfulness of which has been exhausted. The operation, however, is not confined exclusively to fruit trees, but is practised upon most hardwooded plants of an ornamental character. There are several modes of performing the operation. One of the most common is to cut with a sharp knife a longitudinal section of the scion, about an inch or an inch and a half in length, and a similar section from the stock on which the scion is to be placed. The cut surfaces of the two are then laid together in such a manner that the edges of stock and scion overlap each other. They are then bound together by matting, and the whole covered over with a coating, sufficiently thick to exclude the air, of soft clay. In addition to this mode there is tongue-grafting, which is a modification of the mode described already. Cleft grafting is done by forming the end of the scion to be grafted into a wedge shape, and fitting it into a wedge-like opening that has been cut in the stock. Inarching is another mode of grafting, which is frequently used in the case of vines. Two plants growing either in the common border of the vinery or in pots, are brought together and a slice is taken off each, with a sharp knife, nearly half through their diameter, the

cut sections being of the same length. These are then brought together, so that at least two of their sides or lips are in close contact. A tie is then put above and another below the wounds, so that the tie that is to hold the wounds between the two ties first mentioned, may be undone at any time without the risk of destroying the embryo union, until that union is fairly completed. When the vine shows by its vigorous growth that it is deriving supplies of sap from its new parent, its connection with its own roots is at first half severed, and at the end of the first season's growth finally cut off, the two plants being henceforth one.

The Cherry: its uses and culture.—The original home of this delicious fruit is Boncus, in Asia, whence it was brought to Italy 73 A.C. by the Roman general, Lucullus, and was introduced to this country about 120 years later. It is one of the earliest of our imported fruit trees. It is mentioned by Lidgate, an English poet, who wrote about or before 1415. It is an exceedingly refreshing fruit, whether as a constituent of the dessert or in the forms of pies and tarts. A fine wine is made from the juice of the cherry, and a spirit is distilled from the fermented pulp, known in Germany as *Kirschwasser*. The gum which exudes from the tree is equal to gum Arabic, and the wood is useful to the flute and cabinet maker. The cherry, as a rule, luxuriates in a warm, sandy soil, in an elevated situation; but some of the best varieties—for example, the May Duke—will thrive in all soils and aspects. In order to obtain fruit early, some of the varieties are planted against walls, but all the sorts do well as dwarfs or espaliers in general situations, and most of them as standards. Full standards should be planted from twenty to thirty feet, and small standards from fifteen to eighteen feet apart. The proper season for planting is from the end of October till February or March. Varieties of the cherry are perpetuated by grafting or budding on stocks of the black or red wild cherries, and new sorts are procured from cherry stones, which are preserved in sand from the autumn till spring, and then sown. The plants come up the same season, but should not be removed till the second autumn after sowing, when they may be transplanted into rows three feet apart, the plants being placed from a foot to fifteen inches apart in the row. Next summer they will be fit to bud if intended for dwarfs; but if for standards, they should be allowed to stand one or more seasons, generally till they are four years old. They should be budded or grafted about six inches from the ground, the usual way being to bud in summer, and to graft those which do not succeed the following spring. There are various methods of training the cherry when grown on walls or espaliers, which must be left to the judgment of the grower. Occasional pruning is all that is required, the object being to remove any irregularity in cross placed or overcrowded branches, and to take away all cankery and decayed wood.

Vegetable Marrow.—This is a member of the gourd tribe. It is a native of India, a half hardy annual, but produces fruit in the open air in this country during the warmest period of the summer. It is one of the most valuable members of its family, being useful for culinary purposes in every stage of its growth, and a prolific fruit bearer. Its cultivation is simple. Seed may be sown in April in a hotbed under a frame or hand-glass, and the plants transferred to a favourable southern aspect in the open air at the end of May. They may also be sown under a hand-glass without bottom heat at the beginning of May for future transplantation, or the seeds may be sown towards the end of the month in the open ground. They require a rich soil; and may be trained to a pole or trellis, or permitted to ramble over the soil, the runners being pegged down at the joints, where they will readily take root. Water should be given copiously in warm weather when there is no rain.

The Abecedarian Council.—Language is one of the greatest gifts to reasoning beings, and correct use, and a knowledge of it, is a significant mark of cultivation. Among errors in speaking, that of defective pronunciation is the most conspicuous, and this frequently arises from a misconception of the powers of letters, and the modifications of those powers under different combinations or relationships. The hints supplied by the following imaginary "Council," may probably impress the memory of the reader, and correct some of the errors hitherto unconsciously committed.

THAT some "errors in speaking" may hence be dispelled
An Abecedarian Council was held.
The A's and the B's, the C's and the D's,
The E's and the F's got in with a squeeze;
The G's and the H's, the I's, J's, and K's
Had to struggle for places in various ways.
The L's and the M's, N's, O's, P's, and Q's
Got in where they could—there was no room to choose.
R's, S's, and T's, U's, V's, W's, and X's—
To know how they managed, the writer perplexes.
The Y's and the Z's were the absolute last,
And right in the doorway the latter stuck fast.

A

A opened proceedings by wishing to state
Of sounds he claimed four, as *halt*, *far*, *fat*, and *mate*,
Thus varied in length by an easy gradation,
Soon on mem'ry impressed by a brief application.
He owned that he trespassed at times on his friends,
As in *wasp* he seemed O (which our usage commends);
But they more than retorted, he said, with a sigh,
For many who knew not the use of an I
Turned *ace* into *iss*, and *ate* into *it*,—
Thus, for furn*ace* furn*iss*, moder*ate* moder*it*!

B

B modestly said he claimed only one sound,
Quite easily formed, as in *beauty* or *bound*;
But many so clipped him, that frequently he
Had to censure the frolics of meddlesome P,
Who, quite out of place, would turn *bane* into *pane*,
Of which vulgar intrusion B wished to complain.
Moreover, B said he was "under the *thumb*"
Before T, after M, in *debt*, *tomb*, and *dumb*.[1]

C

C, a regular roam-about, stood forth to say
That he often did duty for S and for K;
And this further confession occasioned surprise,
He mimicked poor Z just in one word, *suffice*.

D

D spoke very humbly, and frankly confessed
Having only one sound, save when E was suppressed.[2]

E

E claimed four sounds, as in *me*, *met*, *her*, *there*;
And others when vowels were linked as a pair;
E was sounded as A in *break* and in *steak*;
While in *sew* and in *shew* E an O seemed to make.
In *George* sounds with O, and in *surgeon* with U,
And kept up the same in the simple word *few*.
In *bey*, *prey*, and *survey*, E sounded as A,

[1] B is silent before T, and after M in the same syllable.

[2] When E, in the termination *ed* is suppressed, then D sometimes sounds like T, as *snuffed*, *passed*, *faced*, *packed*.

And seeming determined to have his own way
In *hovel* and *spoken* E would scarce sound at all,
While in *chimney* and *valley* E seemed almost to bawl![1]

F

F modestly said he claimed no sound but one,
Save in *of* he seemed V, and his mission was done.

G

G claimed but two sounds, one hard and one soft,
But he trespassed on F in *laughed* or in *coughed*.
He was hard in *get*, *gear*, and soft in *gin*, *gem*,
He was silent in *night*, *sigh*, *gnash*, *gnaw*, and in *phlegm*.[2]

H

And now for poor H![3] He no sooner appeared
Than the Abecedarians chuckled and jeered.
But H standing his ground, in a manner quite hearty,
Seemed content to be food for sport to the party.
"I will tell you," said H, "I am frequently wronged
By being *expelled* whence I *rightly belonged;*
But my very abusers oft compensate me
By *letting me in* where *I've no right to be!*
I'm called 'poor letter H,' I must candidly own,
But I honestly leave all my compeers alone.
Yet do people expel me from my '*appy 'ome*,
And with me at once to the h)*ospital* roam;
They still do me h)*onour* and h)*umour* me too,
And thus pay me much more than is h)*onestly* due!"

I

I claimed but two sounds, as in *fin* and in *fine*,
A short sound in *wit*, and a long one in *wine;*
But, as if ev'ry vowel must needs have some league,
Take the sound of two *ee*'s in cri*tique* and fa*tigue*.[1]

J

J seemed in confusion, and scarce would appear,
Till G-soft encouraged him, saying "I'm near!"
In fact in *joy*, *jasper*, 'tis puzzling to see
The diff'rence in sound between J and soft G.
For *Germany*, *Gentile*, and words like *congeal*
Seek for J to establish a right of appeal.

K

K said that he had but a small claim to make,
And even of that, C and Q would partake,
Since in *calm*, and in *cataract*, *quadrant*, and *quoir*,
They both did to his keen expression aspire.[2]

L

L spoke of his modesty—trespassed on none,
But was frequently silent, in words like *chaldron*.[3]

[1] When L M N R precede E in a termination, the latter should usually be sounded as woollen, women, flannel, syren.

[2] G is silent before M or N in the same syllable.

[3] H is rather an aspiration than a sound. It is properly called an *aspirate*, pronounced with full breath, as *her*, *here*, *hit*. H final, preceded by a vowel, is silent, as *ah*, *hurrah*, *Sarah;* and at the beginning of a word should usually be sounded, as *hart*, *host*, &c., except in *heir*, *hospital*, *honour*, *humour*, and a few others.

[1] Also like ee in chagrin, mandarin, tontine, magazine, tambourine, marine, &c.

[2] Quire should be pronounced *kwire*. K is used where C would sound S, as in *kind*, *keen*. K is silent before N, in the same syllable, as *knave*, *knee*, *knowledge*.

[3] L is also silent in *almond*, *could*, *would*, *should*, *talk*, *yolk*, *half*, *calf*, *calve*. Chaldron should be pronounced *chadrun*.

In *psalm* was not heard, had in *salmon* no share,
But in *soldier* spoke out with emphasis clear.

M

M spoke of his claim to one uniform sound,
And would not to fetters of silence be bound;
He spoke out like a *man*, and few things would be droller,
Than to find people leaving him out of *comptroller*.

N

N laughingly said that in *sin* and in *sinner*,
He played a strong part, and in *gin*, and in *dinner;*
But in *song*, and in *sang*, in *bang*, and in *rang*,
He escaped through the nose with a singular twang.[1]

O

O set the proceedings completely alive,
By saying of sounds he had no less than five!
He sounded as A in *sought*, and in *wrought;*
In *touch* and in *rough* it was U's sound he caught;
In *brown* and in *gown* he appeared as OU;
And became double-o in *shoe* or *canoe*.
With I or with Y in *boil* or in *boy*,
He claimed sound the fifth with much *boisterous joy*.[2]

P

P had one simple sound, as in *puppet* and *pear*,
But in *psaltry*, *psalm*, *corps*, never troubled the ear.[3]

Q

Q said that he had very little to do,
And never did that unless aided by U.[4]

R

R never was silent but begged to complain,
That many from doubling him would not refrain,
But with Irish-like impulse his true sound would blurt,
And render him thus: "I hope you*rr*'e not hu*rrt*!"

S

Shaped like a serpent, how strange it appears,
That he, like a serpent, should hiss in our ears!
This suggestion was raised, but shaking his head,
S claimed an alliance with innocent Z.[1]

T

T claimed a sharp sound, as in *turn*, *type*, and *top*,
Yet in *bustle* or *whistle* his sound he would stop.[2]

U

U claimed a long sound in *mute*, *unit*, and *suit*,
In *victuals* or *guest* he was known to be mute,
But he had a short sound in *tub*, *bud*, and *sun*,
Somewhat longer in *pull*, but again short in *fun*.[3]

V

V had little to say—and it only was that
F was his master, and V was F-flat!

W

W looked very pompous, his arms being outspread,
And these were the few useful things that he said:

[1] N has also a nasal sound in *bang*, *banquet*, &c. But is mute after M in the same syllable.

[2] O takes the sound of U in *you*, *should*, and *through;* and the long sound of U in *wool*.

[3] Ph sounds as F in *phrase*, *philosophy*, &c. P is silent between M and T, as in *peremptory*, *redemption*, *presumptuous*.

[4] Q is invariably followed by U, as in *quote*, *queen*, *quarter*.

[1] S has a peculiar hissing sound in such words as *see* and *seen*, but sounds as Z in *his*, *has*, &c.

[2] T is also silent in *castle*, *eclat*, *hautboy*. Ti before a vowel sound sh, as in the terminations *tion*, *tial*, *tions*, *tient*. But where preceded by s or x, is sounded, as in *question*, it then partakes of the sound of ch, as *ques-chun*.

[3] U takes the sound of double-o in *cushion*, *cuckoo*, *butcher*, *pudding*, *rue*, *rude*, *fruit*, &c. Before A, has the power of W, when both vowels are sounded, as *equal*, *ek-wal*, *persuade*, *language*, &c. U is silent in *guarantee;* is mute also in *victualler*, *guess*, &c. Both U and E are mute in *tongue*, *plague*, *harangue*, *prorogue*, &c.

He was silent in *wrong*, *wreath*, *whole*, and in *sword*,
And his nature was changed when beginning a word.[1]

X

X has a sharp sound, as in *tax* and *excise*—
(Enough to make tax-payers open their eyes!)
In that good word *exemplary* then he seems flat,
And many, we fear, are too like him in that![2]

Y

Y said that I was his intimate friend,
To each other they oft would their services lend,
Thus one word very often made use of the Y,
While its relative claimed the good service of I.

Z

Z spoke from the doorway, and scarcely was heard,
Yet he modestly wished he might put in a word.
He claimed friendship with S, and sometimes, he said,
When his friend was too fast, he did service instead.[3]

Now the Council has ended—what good has it done?
Has it given instruction? or yielded some fun?
These Letters, we fear, are in some things so malleable,
That none of the group can be voted "infallible."
But their hints may avail for many good uses,
And save Mother Tongue from some common abuses.
Other rules may be gleaned from the learned Grammarians,
So here's "THANKS TO THE COUNCIL OF ABECEDARIANS."

[1] W and Y are consonants when beginning words, in other situations they are vowels. W, when coming *before* H, is pronounced as if if standing *after it*—thus where, what, and when.

[2] X at the beginning of a word sounds as Z,—thus, in *Xerxes*, *Xenophon*, *Xantippe*.

[3] Z bears the same relation to S as V does F, B to P, and D to T.

Garden Spiders, to Destroy.—Various kinds of fruits and plants, both in the garden and the hot-house, are frequently infested with insects, such as aphides, earwigs, red spiders, and other pests. The vine, the peach, the melon, the cherry, the currant, and some humbler plants, afford them appropriate places of abode, to the discomfort of the gardener, and the detriment of his fruit. Several modes of expelling these pests have been devised. One of the most successful is that of frequently washing the plants and fruits by means of the watering-pot and rose. This itself will vastly diminish their numbers, and at length destroy them. Lime-water, however, will be found much superior to common water for the purpose, care being taken that the fluid shall reach the lower sides of the leaves, and those parts of the twigs and branches in which the insects take refuge. Six o'clock in the morning is an excellent time to perform this work. And when the leaves and fruit have been thoroughly washed, care should be taken to shade the plants in the hot-house or forcing-house, with matting, to prevent injury to them from the heat of the sun, while they are in a wet, cool state. The washing may be repeated about three o'clock in the afternoon. And it may be here stated, that as a precautionary measure, before putting plants into frames, the frames ought to be well washed, both in and out with a mixture of soap-suds and chamber-lye, which may be done with a brush or a woollen rag; this will destroy the eggs of spiders which may have been deposited during the preceding season.

To Destroy Insects by Fumigation.—The fumigation of the greenhouse or hot-house with tobacco will be found an excellent plan. The smoke should be made strong, and allowed to remain for some time before opening the door for the admission of fresh air. There are various modes of fumigating a green-house with tobacco smoke, the most common and easy being to burn leaves of tobacco in a common

chafing dish, but this can only be effectual in a small frame or greenhouse; for larger houses a more elaborate apparatus is necessary, and, perhaps, the best of these is the fumigating pot, a cylindrical-shaped vessel made of sheet-iron. Near the bottom a pipe is fitted in with a grate at the inner end. In the lid of the box a pipe is also placed to convey the tobacco smoke used in fumigation, through an aperture made in a square of zinc, in several of the sashes of the conservatory, if it is large, into the house. Fire is placed in the bottom of the box and the tobacco or tobacco-paper over the fire. A pair of common bellows is then applied to the blow hole in the pipe at the bottom of the vessel, and the smoke driven upwards through the lid pipe, until the house is fully fumigated. Hothouses are fumigated in the same way, and plant cases in rooms and windows may be purified of their vermin by an ordinary tobacco pipe.

Maize, to Cultivate as a Vegetable.—There is no vegetable used in England more delicious than the maize, or Indian corn, so common in America. It is boiled when almost ripe, and eaten from the cob with salt, pepper, and butter. The corn grows without the least trouble, all over Canada, and ripens quite as well as in the tropics, and there is no reason why it should not be grown in England, at least as far as the stage when it is required to be used as a vegetable. So long ago as 1829, Cobbett grew Indian corn and ripened it in his garden in Surrey, and others have since followed his example. We have seen the common Indian corn grown and ripened without any difficulty, merely as an experiment, in gardens in the South of Ireland, and if its excellence as a vegetable were more known, it would surely become as common as cucumbers, vegetable marrows, &c., which require more care in the culture. Maize may be raised either in a slight hotbed; or in the open ground, about the middle of April, but if the season be a late one the sowing should be deferred until the first week in May. It is a good plan to make three or four sowings up to the middle of May; the earlier will, however, generally prove the better plants.

To Grow Maize in the Open Ground.—Mark a circular spot a foot across, dig out the earth about six inches; in this make three holes, and into each hole drop two grains of corn. When they come up, draw out the weakest plant, leaving the other; transplant the weaker plants into a similar round pit, and also those that have been raised in the hot-bed.

The reason for making sunk beds to receive the seed is, that the corn requires earthing-up as it grows, and it is better to avoid, if possible, making unsightly heaps round its stems; also, the surrounding earth proves a protection to the plants in their most tender state. The after cultivation of the two sowings is the same; during dry weather liberal watering with weak manure water, and earthing-up from time to time as the plants progress.

To those totally unacquainted with the appearance of the corn when growing, it may be stated that the bamboo-like stem of some of the finest plants is about two inches in circumference at the base; the leaves come in the form of long ribbon-like grass, falling over gracefully towards the stem. The height of the tallest plants is about seven feet to the extreme top of the flower. The stem is jointed at equal distances, about six inches apart; it tapers elegantly to its highest point, and there throws out a cluster of flowers greatly resembling a bunch of pale green wheat. The centre flower shoots straight up, the rest falling in a graceful group around it.

While the flower is expanding, it will be noticed that the stem has at many of the lower joints become perceptibly thicker, and on either side, alternately, will be seen what appears like a mass of closely-folded leaves. This is the "cob," as it is called in America, or, to use more English phraseology, the ear of corn.

As the flower comes to muturity, and begins to shed its pollen, a mass of filaments, very like a skein of beautiful pale green floss silk, will appear at the end of the leaves which enfold the cob. When the threads have changed colour, and begin to shrivel, the cob is ready for cutting as a culinary vegetable. It requires boiling from half to three-quarters of an hour.

Each plant will bear from three to seven cobs. The first which make their appearance are nearest to the flower, and the finest. The plant bears only a leaf at each of the five topmost joints; and those of the plants which have only three cobs, usually have these cobs much finer than the plants that have five or seven. Many of the plants grow with only one stem; others, when from about a foot and a half to two feet high, throw out a shoot on each side; these should be cut away. Those plants which have come without side shoots, and those from which they have been cut away, will bear the finest cobs. The plants with the side shoots left to grow are the most ornamental. As a vegetable, maize or Indian corn is profitable, and to most palates a great delicacy, and, as an ornamental plant, no one can deny its beauty.

Cakes made from Indian Corn.—Hoe Cakes.—Of hoe cakes, all acquainted with "Uncle Tom's Cabin," or nigger literature, have heard. Hoe cakes, which are very wholesome, are made by scalding any quantity of Indian meal with half the quantity of boiling water; butter and salt being added according to taste. The cake is baked in a well-greased tin, and a relish fit for any table will be the result.

Indian Cakes.—A pound of butter, a pound and a half of sugar, six eggs, a teaspoonful of ginger, and the same of cinnamon; three pounds and a quarter of fine Indian meal, and a quarter of a pound of flour. Bake in small tin moulds, and eat when cold.

Johnny Cakes.—Make a thick batter of Indian meal, butter, and warm water; mould it in the hand into small cakes, rubbing a good deal of flour in the hand to prevent their sticking. These cakes are fried in butter or lard; when browned on one side, turn the other. They take about twenty minutes in cooking. Eat them hot, with butter or treacle.

The Meal for these cakes is ground very fine, and dressed a second time, thus removing part of the husks, This makes it much more smooth and palatable than the common Indian meal.

Useful Receipts for Cakes.—A Currant Pound Cake.—Take one pound of best currants, washed and dried; one pound of sifted sugar; one pound of dried and sifted flour; and one pound of good fresh butter, half a pound of citron, cut into thin strips, and ten eggs well beaten, yolks and whites separately; wash the butter with a wooden spoon in fresh water, then squeeze it in a clean cloth, beat it in a deep pan to a cream, then add by slow degrees the other ingredients, beating always the same way. When they are all mixed in, add a large glass of brandy, with a teaspoonful of lemon essence in it; line a cake tin with buttered paper, and bake in a quick oven.

Almond Bride Cakes.—Take three ounces of sweet almonds and half an ounce of bitter; blanch and pound them, add a tablespoonful of ratafia, a quarter of a pound of butter (creamed), a pound of dried flour, and half a pound of sifted sugar; wet with whites of eggs, and bake in buttered tins.

Derby Short Cakes.—Rub half a pound of butter into one pound of flour, and mix one egg, a quarter of a pound of sifted sugar, and as much milk as will make a paste. Roll it out thin, and cut out the cakes with the top of a wine-glass. Put the cakes on tin plates strewed over with sugar, and bake for ten minutes.

Scotch Short Bread.—Take two pounds of dried and sifted flour; mix into a pound and half of it, a quarter of a pound each of candied peel, sifted sugar, and blanched sweet almonds, cut

into small bits; melt a pound of fresh butter, and when cool, pour it into the flour, working it up with the hands, using the remainder of the flour to work it with; form it into a large round nearly an inch thick, cut this into four pieces, pinch each piece neatly round the edge, strew carraway comfits over the top, lay the pieces on white paper, floured, and then on baking-tins; bake in a moderate oven.

Irish Seed Cake. — Beat eight ounces of fresh butter to a cream, mix into it by degrees a pound of sifted sugar, twelve ounces of dried flour, nine eggs well beaten, a tablespoonful of ratafia, an ounce of good whole carraway seeds, and a teaspoonful of lemon essence; bake in a tin lined with well-buttered paper in a quick oven.

Rice Cake.—Take half a pound of rice flour, half a pound of best flour, half a pound of powdered loaf sugar, and seven eggs, the yolks and whites of which must be well beaten separately, the rind of a lemon grated, and half a pound of butter. Beat all well together for rather more than half an hour, butter a pan, fill it, and bake for three-quarters of an hour.

Cream Cakes.—The whites of three eggs, one drop of essence of lemon, and as much powdered sugar as will thicken them; whisk the whites to a dry froth, then add the powdered sugar, a teaspoonful at a time, until the egg is as thick as very thick batter. Wet a sheet of white paper, place it on a tin, and drop the egg and sugar on it in lumps about the shape and size of a walnut. Set them in a cool oven, and as soon as the sugar is hardened take them out. With a broad-bladed knife take them off the paper, place the flat parts of two together, and put them on a sieve in a very cool oven to dry.

Life Assurance.—The duty of making provision for one's family is of universal obligation, and is admitted to be so by every class of the community. But, although the daily avocations of mercantile or professional life, may afford the head of a family the means of performing this duty with tolerable success, during a period of health and activity; it too often happens that the provision made does not anticipate the contingency of death, by which those for whom we so industriously labour, may at any hour be plunged in grief, rendered doubly bitter not only by pecuniary troubles, but perhaps by absolute want. No man inspired with genuine affection for those dependent on him, no man acquainted with the duties incumbent upon him, can regard, without anxiety, the very possibility that such aggravated domestic calamity may befall those, for whose benefit he is daily toiling with anxious solicitude. Now Life Assurance affords a most just and admirable method of warding off evils otherwise inevitable. Happily this is so well known, that arguments in evidence of it are unnecessary. But there is one question connected with the subject of the deepest importance, viz., the solvency and stability of the Company, Society, or Association to which we trust for the performance of the momentous objects we have in view. Unquestionably, on this subject, some legislative measures have been very greatly required; and we are happy to find that an Act of Parliament has recently been passed, which we earnestly trust will be productive of most beneficial results, its title is "The Life Assurance Companies Act, 1870," and its purpose is to "Amend the Law relating to Life Assurance Companies." This Act contains 25 Sections, together with six schedules, all expressly intended to ascertain the stability of any Assurance Companies that may in future be formed. Referring our readers to the Act itself for minute details, we shall content ourselves with bringing under their notice some of its more important provisions.

"Every company established after the passing of this Act . . . shall be required to deposit the sum of £20,000 with the Accountant-General of the Court of Chancery . . . and the Accountant-General shall return such deposit to the company so soon as its life assurance fund accumulated out

of the premiums shall have amounted to £40,000."

The necessity of this deposit will itself have a salutary effect, but in addition to this, several of the other sections of the Act are hardly less important. The seventh section contains the following:—"Every company shall once in every five years, if established after the passing of this Act, and once every ten years if established before the passing of this act, or at such shorter intervals as may be prescribed by the instrument constituting the company, or by its regulations or by-laws, cause an investigation to be made into its financial condition by an actuary, and shall cause an abstract of the report of such actuary to be made in the form prescribed in the fifth schedule to this Act."

Before the end of 1872, and subsequently within nine months after each investigation into its financial condition, each company shall prepare a statement of its life assurance and annuity business, "in the form contained in the sixth schedule to this Act." These statements or abstracts are to be signed, printed, or deposited with the Board of Trade, and copies are to be given to "every shareholder and policy holder of the company." A penalty of £50 will be incurred for every day during which any company does not comply with the requirements of this Act, and any person who signs any statement or document required by this Act, and which is in any particular false, shall be liable on conviction to fine and imprisonment, "or on summary conviction thereof to a penalty not exceeding fifty pounds."

These important provisions will, it cannot be doubted, go far to render future companies perfectly secure, and the new enactment will therefore confer upon the public an inestimable boon, by rendering the provisions which the insurer makes for one of the most important objects of his existence perfectly certain.

"Age next birthday." This is one of the questions which insurance offices require those about to insure their lives to reply to. Let us beg our readers to consider the very great importance which attaches to this question. Instances have occurred in which most grievous hardship has been inflicted upon the representatives of persons insured, by oversight or mistake on this subject; insurance offices have sometimes refused to pay policies, however long they may have been kept up, merely because no satisfactory evidence could be obtained of the exact age of the person deceased. Let us suggest to our readers that all such injustice and hardship can be rendered impossible by having the age of the person insured certified at the outset, and admitted and endorsed on the policy itself.

Ozokerit Candles.—We have no doubt that many of our readers, particularly those of the fair sex, have been sorely perplexed for some months past, at the mysterious announcement of "Ozokerit patented," which has occupied a prominent place in every newspaper, magazine, and periodical of any repute. Speculation has been rife on the subject, and even bets have been exchanged; some holding that it was a scent, others a species of corn flour, a disinfecting fluid, food for infants, and it has even been averred that it was some new and wonderful description of sewing machine, that would cut out and make clothes by itself, on simply turning a handle.

Just before going to press, we find that the proprietors have in some measure elucidated the mystery, but as many of our readers, especially where resident abroad, may not have seen this, we shall try to give a proper explanation. Ozokerit, then, is a new kind of candle, patented and manufactured by Messrs. J. C. and G. Field, from a new description of mineral wax, found in the Ural and Carpathian mountains, the borders of the Caspian Sea, Russia, and Persia. The name "Ozokerit" is derived from the Greek particle *Ozo*, "I smell of," and *Keros*, "wax." The substance closely resembles the pure spermaceti; it has the bluish white flame of the paraffine, but very much larger in volume, and as

it is not only extremely hard and unbending, but possesses illuminating powers of extraordinary brilliancy, the candle seems admirably adapted for use in warm climates, assemblies, balls, &c., whilst its moderate price, fifteen pence a pound, places it within the reach of all families, who do not, or may be unable to use gas.

Messrs. Field have been so eminently successful in their previous improvements in candles, that we feel assured the "Ozokerit Candle," like its predecessors, will secure a large amount of public favour.

Needlework.—Tatting or Frivolite.—This is an old style of work revived, and its principal merit consists in the strength of the edgings that are worked in it. The work can be made of great fineness, but what it gains in beauty it loses in strength; it is, however, fashionable, and is a graceful mode of occupying white and delicate hands.

The Implements for tatting are an ivory or tortoiseshell shuttle, with a gilt purling pin and a ring attached to the pin by a chain; this pin is used for drawing the thread through the little loops called picots by which tatting is joined.

The Cotton may be any strong and yet soft make; fine crochet or machine-sewing cotton is suitable for this purpose.

The Stitch.—In ordinary tatting there are *two* stitches used to make *one* stitch; it is therefore called double stitch, and consists of what are known as French stitch and English stitch.

To begin to learn to tat, fill the shuttle with cotton in the same way that a netting needle is filled, leave about a yard or rather less of the end loose; take the cotton, a few inches from the end, between the first finger and thumb of the left hand; pass the cotton over the first three fingers of that hand and lay it across the end already under the thumb, then hold both together under the thumb, allowing room for the free movement of the three fingers now under the cotton loop. Take the shuttle between the first finger and thumb of the right hand, let the cotton fall loosely over the back of the left hand, and pass the shuttle under the loop of cotton between the first and second fingers of the left hand, passing the shuttle *from* you under and upwards, then draw the shuttle tight, and form the knot by the left hand thread on the shuttle thread, if this is not done the loop will not draw up when finished; this forms the French stitch, the one half of the double stitch. Proceed then to form the other half, the English stitch, in the following manner:—Let the thread fall towards you, put the shuttle over the left hand thread, and pass it under and downwards towards you between the first and second fingers of the left hand, draw the shuttle tight as before; this forms one double stitch.

To make a Picot, twist the purling-pin in the left-hand thread close to the last-formed stitch, make a double, then take out the pin, leaving a small loop called a picot.

To join the loops. Having made a picot in the first loop at the point of junction, when you come to a corresponding stitch on the second loop, draw with the pin, the left-hand thread through the first picot, in a sufficiently large loop to admit the shuttle, pass it through, then draw the left hand thread tight again and continue the work.

In working with two threads, fill the shuttle without cutting the thread off from the reel; the reel thread is used in the connecting bars in several patterns, particularly in edgings.

Tatting Edging, No 1.—This is worked with a single thread, and forms a trefoil.

First Oval.—Make a loop, and work three double, one picot three double, one picot three double, one picot (two double, one picot four times repeated); three double, one picot, three double, one picot, three double, draw up.

Second Oval.—Commence close to last; make a loop and work three double into last picot of first oval, three double, one picot, three double, one picot, (two double one picot, six times), three

double, one picot, three double, one picot, three double, draw up.

Third Oval.—Three double, join into last picot of last oval, and work the same as first oval. Now fasten off, and commence as from first oval, but join at the thirteenth double into fifth picot of last oval, and continue as before. Work the edge in crochet, with one single chain into three picots of small ovals, and two chain between each oval

Tatting Edging, No 2.—This pattern is worked with two threads.

First Oval.—Three double, one picot, three double one picot, three double (one picot, two double five times), three double, one picot, three double, one picot, three double, draw up tight. Now take the reel thread, and work on it six single, one picot, six single, draw it up and commence another oval with the shuttle thread, in this manner, three double, join into last picot of last oval, three double, join into next picot, three double (one picot, two double five times), three double, one picot, three double, one picot, three double, draw up and take up the reel thread as before.

Make an edge by working into the first picots made by the reel thread one single crochet, three chain, one single crochet into the loop joining the oval.

Tatting Edging, No. 3.—This is worked in two rows. First row double thread, commence by making with the shuttle thread first oval *, three double, one *long* picot (three double one picot four times), three double, one *long* picot, three double, draw up. Now work upon the reel thread, six single, one picot, six single, draw up and commence another oval, three double, join into last *long* picot of former oval, three double, one picot, three double, one *long* picot, three double, draw up, and again take up the reel thread and repeat from first star. The second row or edge is worked with double thread *, draw it through first short picot of large oval, and fasten, two double, one picot, two double, one picot, two double, one picot, two double, draw the shuttle thread through next picot of oval, and continue until four picots are filled, two double, draw the shuttle thread through centre picot of small oval, two double, and repeat from *. The edge is worked in crochet as in No. 1.

Hints on Dinner-Table Decorations.—The following admirable hints for dinner-table decoration appeared some time ago in the *Queen* newspaper. We now present them to our readers almost without abbreviation.

"There are few houses now in which dinners *à la Russe* have not gained favour, either to the full or else to the modified extent; both require the table to be prettily decorated with flowers, ferns, and fruit, and offer an excellent opportunity for the good taste of the owner to be displayed in arranging them. What a pleasant contrast a dinner-table of the present day offers to those of our grandfathers, when the eyes and nose were alike annoyed by the ponderous courses set before them! Now we have bright sweet flowers and cool-looking ferns before us, with perhaps a tiny fountain in the centre of the table, or one of those loose blocks of ice that have become so general and fashionable an ornament Not only are our eyes rested and gratified by the sights and scents of some of nature's most charming productions, but our personal comfort is decidedly increased, the temperature being kept much lower by the hot dishes being away from the table, and by the evaporations from the flowers, fountain, or ice blocks.

"Perhaps a few hints on dinner-table decorations may be found useful and acceptable by those who take pleasure (and who does not?) in seeing their tables prettily arranged, and therefore I place my experiences at their service. Every one has heard of, and many have seen, those lovely "looking-glass" tables, in which a sheet of glass is extended the whole length and width of the table, only leaving sufficient room for the plates, wine-glasses, &c. The edges of this sheet of glass are hidden by moss, with flowers placed in it; or, still prettier, by long wreaths of flowers

and drooping leaves, placed in narrow green tin trays; these are about an inch wide, and, being filled with damp sand, the flowers remain in their natural brilliance for the whole evening. This table, of course, was a costly thing; but a short time ago I saw a modification of it, which is within the reach of all. This was a round (or oval, if it suits the table better) piece of looking-glass, about two feet in diameter, and encircled by a ring of brilliant flowers and leaves; the flowers were placed in one of the green tin trays that I have alluded to, which was about two inches deep, and rather more in width. These trays can be made at a very trifling cost by any worker in tin, and should be painted green before being used. A very pretty centre for the table might be arranged by placing the piece of looking-glass on a stand, and placing ring after ring of flowers, resting one on the inside edge of the other, until a pyramid was formed, concealing the wooden stand, and having for its apex the lake of looking-glass.

"Nearly every one has one or more of those lovely clear glass vases, generally known as "Exhibition" vases. These universal favourites have but one fault, but that is a terrible one—their fragileness. The least careless touch or violent shake, and the slender stem snaps. There are now made similar vases *in basketwork*, which, while retaining all the prettiness of their relatives the glass ones, possess nothing of their aptitude to break. They are lined with tin, to hold the water. A white painted wicker one, with gold lines, would look very pretty in the middle of a luncheon table; or, for common use, plain white or brown wicker. Any basket shop, too, will furnish prettily made baskets with handles, and lined with tin. In these you can place a small pot of flowers or ferns, hiding all with plenty of moss; and they would look very pretty on either end of a sideboard. At Weston-super-Mare, near Bristol, there is a manufactory of terra-cotta, well worthy of being visited and examined by all who like to have pretty things for their pet plants, whether on tables, in conservatories, or in gardens. Every imaginable thing is made here; but I must especially mention the baskets, flower-pots, and saucers for mosses and ferns. The designs are beautiful, and there is something in the colour of terra-cotta which seems to set off the lovely green of the ferns and mosses, as well as the brighter hues of the flowers.

"There are all kinds of devices for hiding the pots in which flowers are growing when placed on a table. One of the most useful things is certainly the expanding cover, made of crossed pieces of wood, and which will fit any flower-pot. They can be bought almost everywhere, and for the trifling sum of 1s. to 1s. 6d., so that they are within the reach of all. However, many people prefer to see the work of their own hands before them, and for their benefit I will mention one or two other things for hiding the flower-pots. One is very much like the expanding covers I have just mentioned, but is made of folded slips of letter paper, fastened where they cross by tufts of scarlet wool; the letter paper is folded much as if it was going to be made into "lighters," only in four folds instead of three. Another very easily made one is done by cutting a sheet of thin cardboard, or rough drawing paper, into a little larger shape than the flower-pot it is destined to cover; close it at the side, paint it dark green, and then sew closely all over it bunches of that pretty bright dark green moss that can be bought very cheaply at any florist's. Care must be taken that the moss is thickly sewed on, and does not show the cardboard. The effect is excellent, and the cost trifling. Wire flower-stands might have the sides lined in a similar way.

"At some tables (though the fashion, I am sorry to say, prevails more in France than England) charming little bouquets are laid on each guest's plate, or placed in the champagne glass. Every one seems pleased to receive such a sweet welcome, and they are speedily

transferred to the dresses of their fair recipients, or to the button-holes of the sterner sex. As a gentleman now hardly considers himself dressed "point-device" without his button-hole bouquet, perhaps a few words on making them up may be acceptable to my fair readers. Provide yourself with plenty of fine wire, and with this fix securely the petals of any rose, rosebud, or camellia that you may be going to use; driving the wire across the bottom of the rose, straight through, and bringing the ends of it down the stalk. For geraniums, azaleas, &c., a drop of the stiffest gum in the centre of each flower will keep their bright petals from falling. Always *back* the bouquet with some leaves of the fancy-edged geranium, then the rose or buds, or camellia, or whatever you are going to use; then a tiny spray of maidenhair fern, and some heliotrope or Parma violets, or any *little* flowers that the season may give you, and with another bit of fern your bouquet is complete. Round each flower as you add it put a twist of wire to keep all firm."

Brooms, or Sweeping Brushes.—These articles of household furniture, which are in constant requisition, are made of various materials, such as cane, hair, whalebone, &c., and are all too well known to require specific description. Those made of the inside of the canes called rattan, after the outside has been stripped off for the seats of chairs, are very effective and durable, and have the merit of being cheap. One of the most recent and ingenious inventions is Kent's "Patent Champion Sweeper." The brush, which is made of bristles, is placed on a cylinder, and connected with it are two rollers, by which it is made to revolve as it is pushed over the carpet. It sweeps the dust into a pan, which is closed, so that the dust is collected without being diffused over the apartment. The contrivance is precisely similar in principle to the mowing machine. It has the merit of being ingenious, and is suitable to the purpose of sweeping the dust where it is particularly desirable that it should not be scattered; but the instrument is heavy, and servants are extremely apt to let them get out of order. A modification of these sweepers has been made for the purpose of sweeping billiard tables, which is said to be a complete success; and it supplies a want that has long been felt, the difficulty of sweeping the dust thoroughly off a billiard-table being very great, in consequence of the dust and flue collecting at the ledges and corners, in spite of all the care that is taken to keep them closely covered.

Crimping and Goffering Machines.—These pieces of mechanism have been invented for the purpose of producing the plaiting or fluting on frills, with much greater regularity and expedition than can possibly be done by the hand goffering machines. The work is performed by grooved rollers, which are heated and turned by the handle after the articles to be plaited have been placed between them. In the goffering machines the grooves are larger and less regular than in those used merely for crimping. These machines are well adapted to those establishments where a large quantity of such work has to be done, but in private households they are much less necessary.

Bellows.—The common bellows is a well-known contrivance for blowing the fire, and is not only simple and ingenious, but of great antiquity. Its structure is so familiar to us, that it is hardly necessary to describe it. The double bellows commonly used in a forge has been occasionally made for domestic use, but it is found too heavy for the purpose. It has the advantage of producing a continuous stream of air. Clarke's patent blower is a great improvement on the old-fashioned bellows; it is light and cheap, and also produces a continuous blast, which blows up the fire much better than the common instrument.

To make a Devil.—Cut up thin slices of any cold meat, fowl, or kidneys; lay them in a shallow dish,

and pour over them the following: One teaspoonful of powdered mustard, two teaspoonfuls each of Worcester sauce and mushroom ketchup, one teaspoonful of Chili wine or vinegar, half a teaspoonful of Cayenne, a teaspoonful of salad oil, or small piece of butter if there is no fat on the meat; a teaspoonful of lemon juice, and a wineglassful of Claret or Burgundy. Set the dish in the oven, and stir the meat about in the same for a quarter of an hour.

To make a Grill.—Mix in a teacup equal quantities of mustard, ground pepper, and vinegar. Take the legs and gizzard of a turkey, or some beef or mutton bones. Slit the meat down to the bone, and fill the slits with this mixture, rub it well in all over the meat, then broil over a very clear fire.

Yorkshire Pudding.—Break a good-sized egg into a basin with three tablespoonfuls of flour, mix it well, then add milk by degrees; the batter must be well blended, and about the thickness of rich cream. Have the tin ready with a little warm dripping in it from the joint that is roasting. Pour in the batter, then put it into the oven for a quarter of an hour, to set it; take it out and lay it slanting towards the fire under the joint for half an hour. Pour off the dripping and serve. This recipe makes about a pint of Yorkshire pudding.

Frangipani.—Take six bitter and a handful of sweet almonds; pound them as fine as possible in a mortar with a tablespoonful of rose water, add a quarter of a pound of powdered sugar, a tablespoonful of flour, the yolks of two eggs, half a lemon peel grated fine, one spoonful of orange marmalade, and the same quantity of chopped peel, and a little nutmeg: mix all together with half a pint of good cream. Line a baking tin with a thin light paste, laying a thicker bit round the edge, put in the preparation, bake in a moderately hot oven for about half an hour.

Cheese Straws.—Take a quarter of a pound each of flour, butter, grated Parmesan cheese, and a little salt and cayenne pepper. Mix these together with an egg. Roll out the paste thus made about half an inch thick, and cut it into strips about three inches long and half an inch broad. Bake in a moderate oven, and serve, piled on a napkin, hot. The same mixture may be made into flat biscuits, in fancy shapes, as a variety.

Fried Ramequins.—There is no mode in which cheese is presented at table so common as in ramequins, which may be varied according to taste. When fried, they are generally prepared by putting into a stewpan a quarter of a pound of rich cheese sliced thin, and two ounces of butter. Shake the pan round till they are melted and mixed; then add the frothed whites of three eggs, beat all together; put into the frying-pan small squares of bread on buttered paper; pour the mixture upon the pieces of bread, lay them in butter for five minutes, drain them on a napkin, brown slightly with a salamander, and serve hot.

Ramequins with Anchovy.—Put into a stewpan a quarter of a pound of grated mild rich cheese, a quarter of a pound of butter, an anchovy cut very small, and a glass of white wine; stir in, as it simmers, two tablespoonfuls of flour, or as much as will form a paste; then transfer the paste to a pan, and beat up with it as many beaten eggs as the paste will imbibe, without becoming too thin; then mould it into the form of small eggs, brush over with egg, and bake a quarter of an hour to a golden brown.

The Dormouse, and how to keep it.—This gentle, but rather stupid little pet, appears to partake of the nature both of a squirrel and a mouse; in habits resembling the former much more than the latter. They are natives of the south of Europe and north of Africa; one species only is indigenous in England. They are very gentle, and easily tamed, and are often kept for years in a cage; which, however, must be warm and very clean. Their natural food is beechmast, acorns, nuts, grain, &c.

They hybernate like squirrels, but on mild days in winter they wake up and take food. The floor of the cage should be spread with fresh sand every day, and the sleeping-box filled with soft moss or dry grass. This should be frequently changed. In winter, wool should be added to the moss, and the cage should stand in a moderately heated room, as sudden changes of temperature are often fatal to these little creatures. When in confinement, their food should mainly consist of hemp, canary, and millet seed; a nut (cracked), occasionally an almond or two, a little plain biscuit, and a little ripe fruit for a treat. If unwell, a small portion of white bread and milk may be given. Dormice should be handled very gently, as they are easily injured; but, with care as to temperature, cleanliness, and fresh air and clean water, they will live for a long time.

Remedy for Flies on Horses.—As many of our readers have doubtless pitied their horses when worried and tormented with flies, we give the following remedy, which is said to be an excellent one, from the *Journal of Chemistry*:—Take two or three small handfuls of walnut leaves, upon which pour two or three quarts of cold water; let them infuse one night, and pour the whole next morning into a kettle, and let them boil for a quarter of an hour. When cold, the mixture is fit for use. Before the horse goes out of the stable, moisten a sponge, and let those parts which are most irritable, be smeared over with the liquor, namely, between and upon the ears, the neck, the flanks, &c. Not only the gentleman or lady who rides out, will derive pleasure from the walnut leaves thus prepared, but the coachman, ostler, waggoner, and all others who use horses during the hot months, will be delighted with the fragrance.

Epileptic Fits; or, as it is commonly called, the Falling sickness. This is a complicated disease of the nervous system, which has been known from the earliest times.

Symptoms.—The principal symptoms of an attack are sudden loss of consciousness and sensibility. The patient gives a loud piercing shriek or groan, and falls to the ground, violently convulsed and foaming at the mouth. The tongue is frequently thrust out and bitten, the eyeballs are rolling, the pupils dilated and insensible to light, the breathing is laborious, and sometimes almost ceases, the face becomes flushed and congested, and the skin is cold and clammy. As the attack passes off the patient remains insensible, and apparently in a deep sleep, with heavy breathing or snoring.

Duration of Attacks.—The duration of an attack is from three or four minutes to half an hour, or more, and the frequency may be as great as two or three in a day, whilst in other cases months may intervene between the attacks. In many instances a curious sensation is felt creeping up the arm or leg, giving warning that the fit is about to come on.

As epilepsy is brought on by a variety of causes, it will be necessary to seek the aid of a physician; but during the duration of an attack the following directions should be followed:—

Treatment.—The patient should be laid on a bed, or on the floor, care being taken to prevent his injuring himself by the violence of the convulsions. Plenty of air is to be admitted around him, his clothing should be loosened, especially about the neck, and a piece of cork or soft wood, if possible, be put between the teeth, to prevent the tongue being injured. Dashing cold water over the head if sometimes useful when the face is very much flushed. The popular plan of giving salt is bad, and should be avoided.

Saturnine Cerate for Burns, &c.—Acetate of lead in powder, two drachms; white wax, two ounces; olive oil, half a pint. Melt the wax in seven fluid ounces of the oil; then add gradually the acetate of lead, rubbed down with the remainder of the oil, and stir the compound with a wooden spatula till completely com-

bined. This ointment is an excellent cooling application for inflamed sores, excoriations, and burns. It ought to be renewed night and morning.

Turner's Cerate.—Prepared calamine and yellow wax, of each half a pound; olive oil, a pint. Melt the wax, and mix the oil with it, and add the calamine as the mixture cools, stirring it constantly till it is cold. This preparation is possessed of cooling and healing properties, and is of much use as applied to ulcers and burns after the inflammation has subsided.

Balsams.—Friar's Balsam.—This preparation is compounded of benzoin, purified storax, balsam of tolu, socotorine aloes, and rectified spirits of wine. It is stimulating to the lungs and stomach, increases their tone, and thus promotes expectoration. It is useful in old coughs and asthmatic complaints, but not adapted to recent coughs. The dose is from twenty to forty drops, twice a day on sugar. This medicine is well known to the druggist under the name of Compound tincture of Benjamin. It has been celebrated also under the various names of Turlington's Balsam, Wade's Drops, Commander's Balsam, and Jesuit's Drops.

Balsam of Honey.—Balsam of tolu, one ounce; gum storax, one drachm; purified opium, fifteen grains; best honey, four ounces; rectified spirits of wine, one pint. Digest them together for a week, and strain the liquor. This prescription is of great use in colds and habitual coughs, unaccompanied by feverish symptoms. The dose is from one to three teaspoonfuls occasionally. This medicine is understood to be identical with what is known as Sir John Hill's Balsam of Honey.

Electuaries.—These are chiefly mixtures of vegetable substances combined with syrup or honey, so as to be of a moderate consistence, neither liquid nor solid. The object of such preparations is to secure a vehicle, by which medicines may be administered, so that their taste may be covered by the mixture with which they are combined.

Aperient Electuary.—Cream of tartar, one ounce; milk of sulphur, one ounce; sub-borate of soda, two drachms and a half; syrup of ginger, of sufficient quantity to give the required consistence. The dose is one or two teaspoonfuls at bedtime. This will be found a mild and excellent laxative, and often is of great use in uterine obstructions.

Lenitive Electuary.—The mode of preparing this electuary is the following:—Take of the best senna leaves reduced to a fine powder, four ounces; pulp of prunes, one pound; pulp of cassia, a quarter of a pound; pulp of tamarinds, three ounces; treacle, a pint and a half; essential oil of carraway, two drachms. Boil the pulps with the treacle to the consistence of honey, add the senna, and when the mixture is nearly cold, add the oil of carraway, and, lastly, mix the compound thoroughly. This preparation is a mild aperient, suited to constipation from whatever cause. It is admirably suited to children and delicate persons. United with an equal quantity of flowers of sulphur, it is an admirable remedy for piles. The dose is from one to three teaspoonfuls at bedtime.

Lemon Kali.—To make the lemon kali, take one pound of powdered white sugar, half a pound of bicarbonate of soda, half a pound of citric acid powdered, and half a drachm of essence of lemon. Sift the whole well together, and put it into dry, wide-mouthed bottles. Tartaric acid may be used, but it is inferior to the citric acid. Much depends also on the freshness of the essence of lemon, and on the careful exclusion of damp from the mixture.

Cough Mixture.—Honey, five ounces; treacle, a quarter of a pound; best vinegar, seven ounces. Mix these ingredients, and let them simmer for fifteen minutes, and when the mixture is milk-warm, add two drachms of ipecacuanha wine. Dose: a tablespoonful every four hours. This mixture deserves the high repute it possesses. It is well adapted for children, the taste being agreeable.

Conservatory Gas-boilers.—The great demand for gas as an agent for lighting purposes, has probably had some influence in preventing even the most ingenious persons from rendering the heating properties of gas as available for domestic uses as its illuminating qualities confessedly are. This important object, however, has for some time been attracting attention, and various contrivances, more or less ingenious, have been adopted to accomplish it. Among these the "Nonpareil" gas boiler and hot-water apparatus, and the "Nonpareil" gas oven, made by Mr. Shrewsbury of Lower Norwood, deserve special attention. The first of these inventions appears to be extremely well adapted to a number of useful purposes, in connection with household economy, such as the heating of conservatories and vineries; warming halls, counting-houses, harness-rooms, &c. These boilers can either be fixed outside the conservatory (which may be done without any brickwork), or they can be fitted to the pipes of the ordinary coke boiler without disturbing it. They use up all the heating properties of the gas, thus preventing waste; and as the burner causes no smoke, it consequently does not require frequent cleaning. Being free from smell, or escape of gas, they are admirably suited for indoor use. Dr. Letheby, referring to this gas boiler, makes the following remark:—"It is a very economical apparatus, and is evidently well suited for warming rooms and conservatories."

The gas oven is also an apparatus on which much skill and ingenuity have been successfully expended. The gas is not introduced inside the oven, and thus all danger of any deposit of carbon, or any smell in the oven of half-consumed carburetted hydrogen, is completely prevented, and the process of roasting or baking is carried on not only most effectively, but with remarkable economy. It may be added that the oven has received the approval of Dr. Letheby as well as the boiler above referred to.

Propagating Fruit and Rose Trees.—There is a successful method of propagating rose, apple, pear, and apricot trees not generally known. The operation should be performed in the month of June. Take fresh and vigorous cuttings of last year's growth, bend them in the form of a bow, and place them in the earth with the centre, or bent part upwards, just on a level with the surface, at which point there should be a bud or shoot, which is the only part to be exposed to the air. The other parts, covered by the earth, form roots that feed the bud, which soon starts into leaf. The mode of setting them is to make two drills, about three inches apart, with a ridge between, over which bend the cutting, and sink an end down into each drill, pressing the earth very firmly; then water freely. They may be put out in the open air, and do not require shades. This method has been tried, and found very successful; and other kinds of trees and shrubs can be struck in the same manner.

Perfumes.—Natural perfumes are not only the most healthful, but are the least costly. The science of chemistry has introduced among our artificial perfumes, many substances of an offensive nature in their natural state. The artificial oil of bitter almonds, now largely employed in perfuming soap and flavouring confectionery, is prepared from the fetid oils of gas tar.

Many a fair forehead is damped with eau-de-millefleurs, without knowing that its essential ingredient is derived from the drainage of cow-sheds! The oil of apples is made from fetid fussel oil; and the oil of pineapples from a chemical treatment of putrid cheese. Yet there are many chemical perfumes that are unobjectionable, owing to the similarity of the elements of the substances from which they are elaborated, to those that are found in a state of nature. Thus the oil of lemons, of roses, rosemary, &c., are identical in composition with the oils of turpentine and copaiba.

Cleanliness for Plants.—Frequently the cause of the languidness of plants in rooms, arises from want of care in cleansing the leaves. Plants breathe by their leaves, which should be kept perfectly clean, otherwise their respiration is interfered with. The mere watering of the roots is not enough. Plants also perspire by their leaves, and any accumulation of dirt and dust retards this useful function. Plants also feed by their leaves, by absorbing the carbonic acid of the atmosphere; and, to speak familiarly, dirt destroys both their appetite and digestion. Let any one examine a sickly plant, long kept in a sitting room, or draw a piece of white linen or leather over the surface of the leaves, and he will probably discover the cause of the plant's drooping.

The Home of Taste.—It is easy to be neat and to be clean, and these are two leading charms of domestic life. How easy it is to arrange rooms with graceful propriety! Elegance resides not with the draper or the upholsterer; it is not put up with the hangings and curtains; it is not in the carpetings, the furniture, or the ornaments. These may be all oppressive and cheerless, if the presiding spirit be not neat, cheerful, and given constantly to those little handyworks that impart brightness to the surroundings of daily life, though the acts themselves may be so simple and easy as to excite little observation.

News from Home!—We have long enjoyed penny postage, and now, under certain restrictions, but vouchsafing to us great privileges, comes half-penny postage. From east to west, from south to north, a half-penny will henceforward convey printed news, while a penny will, as hitherto, frank the written confidings of friendship or love. Who can estimate the great moral results that may spring from cheap and rapid postal communication? How many a father is comforted on his journey of life; how many a son is reminded of the hope of his childhood; how many a married daughter feels herself again amidst the happy circle of her younger years? Let news *from* home, and news *for* home, henceforth weave the ties of our existence, and keep our hearts in fond response.

The Best Promises.—The best promises are those that are sincerely made, and faithfully kept. There are some people of whom the young and inexperienced need to be warned. There are the sanguine promisers, who, from a foolish custom of fawning upon those they meet, have acquired a habit of promising to do great kindnesses, which they have no thought of performing. There are others who, while they lavish their promises, have some thought of performing what they engage to do; but, when the time of performance comes, the sanguine and benevolent fit being gone off, the trouble or expense appears in another light; the promiser cools, and the expectant is painfully disappointed. Never promise without consideration; and always perform what you promise.

Education consists too much in naming things, when it should relate more to their properties and uses. If we instruct children orally while contemplating nature, we impart ideas that render names and facts doubly interesting. The teacher should take occasion to give instruction in gardens, fields, by the side of rivers, lakes, ponds, &c. He should speak of the various objects seen, and invite from the children inquiries, and endeavour to perfect their impressions. Walking and talking lessons will do much to enlarge and strengthen the youthful mind, and form a pleasing relief to the formal routine of the schoolroom. By these lessons the foundations of character are frequently laid, and no subsequent influences can destroy them. Linnæus was the son of a poor Swedish clergyman. His father had a little flower garden, in which he cultivated all the flowers which his means or taste could select. Into his flower garden he introduced his child from infancy, and thus created the taste in Linnæus, which afterwards made him the first botanist and naturalist of his time.

Seek to Discover Something.—The details of the deplorable war between France and Prussia have served to show how active certain minds have been in the study of implements and chemical agents of destruction. Needle guns, breech-loading cannon and rifles, chassepots, mitrailleuses, and various explosive and life-destroying compounds, bear ample testimony to the industry of a class of people, who devote their minds towards the construction of destructive implements.

To discover works of good, promotive of peace or industry, is a far worthier occupation. The electric telegraph, photography, chloroform, gas, and various economic oils, the application of vegetable fibres to the manufacture of paper, &c., are among the later triumphs of pacific inventions. The various kinds of nutritious food now being introduced, if not actual discoveries, are at least new and extended applications, tending to supply the wants of the ever-increasing human family.

The great laboratory of nature is doubtless far from exhausted. And though we cannot all be discoverers and inventors, we may contribute to human progress by intelligent observation, and by friendly encouragement to those who plod upon the pathway of discovery, although they may not be successful in their first steps. Most young people have great respect for men of science, and are apt to think that it is impossible that they can ever know as much as Doctor or Professor So-and-so.

All the persons whose knowledge is now wondered at were once as ignorant as any one who reads this. If you desire to become learned about natural things—the rocks, trees, animals, and the like—you must, in the first place, learn to use your eyes, or make observations, as they are called. One of the most celebrated naturalists of his time once said, in speaking of some of his discoveries, "All I had to do was to look and see how things were formed."

Hints to Young Ladies.—Men who are worth having want *women* for their wives. A bundle of gewgaws, bound with a string of flats and quavers, sprinkled with eau-de-Cologne, and set in a carmine saucer, is no help for a man who expects to bring up a family upon substantial bread and meat. The piano and crôquet are good in their places, and so are beads, falls, and frills; but you cannot make a dinner nor a bed out of either; and both dinner and bed are necessary to domestic happiness. Life has its realities as well as its fancies, but these are too often made a matter of decoration; the curtains and tassels may be thought of, but the bedstead is forgotten. Suppose a young man of good sense, and of course of good prospects, to be looking for a wife—what chance have you to be chosen? You may catch *him*, but how much better for him to make it an object to catch *you!* Render yourself worthy of being won, and then you will find that honourable and worthy candidates will aspire to the possession of the prize.

Economical Wives.—A young married woman, who has not had the opportunity of profiting by the advice and example of a good mother, will find some difficulty at first in applying her household money to the best advantage; for there is really an art in spending money. Some women will keep house respectably on one third less money than will be required by others, yet without either meanness or illiberal dealing. But to do this, judgment, forethought, and experience are necessary. One woman will be able to tell you to a shilling what her housekeeping costs, while another cannot guess at it. The former has method and regularity and a certain sum assigned to her; while the latter is all hap-hazard—it comes and goes, and she knows not how. And this is almost sure to be the case if the money is doled out by her husband, instead of being given in one sum to the extent of his means. True economy is a sound understanding brought into action; it is calculation

realized; it is the doctrine of proportion reduced to practice; it is the foreseeing of contingencies, and providing against them; it is expecting emergencies, and being prepared for them.

Little Things.—Springs are little things, but they are sources of large rivers and lakes; a helm is a little thing, but it governs the course of a ship; nails, screws, pins, and pegs are little things, but large things could scarcely be constructed without them. A word, a look, a frown, a smile, a tear, are all apparently little things, but they exert mighty influence.

Brothers and Sisters.—The character of young men depends much upon that of the young women with whom they associate. If the latter are cultivated, intelligent, and accomplished, young men will feel the requirement that they themselves should be upright and gentlemanly; but if their female friends are frivolous and silly, young men will be found dissipated and worthless. A sister is the best guardian of her brother's integrity. She is the surest inculcator of faith in female purity and worth. As a daughter, she is the true light of home. The pride of the father oftenest centres in his sons, but his affection is expended on his daughters.

Husbands and Wives.—The Husband.—The power of a husband to make his wife happy, or the reverse, is quite as great. A good temper, a determination to leave care as much as possible at his place of business, a disposition to avoid assuming lordly authority, are great qualifications very easily cultivated. A handsome husband must become plain sooner or later; a rich one may become poor; a talented one may find his abilities underestimated; but a husband with an amiable temper always continues the same, and rarely disappoints those who rest upon him. If to his good temper he adds good sense, he will be sure to make his wife happy. It is not the man of showy qualities who will make the existence of his wife pleasant; it is he who has common sense and a good heart. The qualities that wear well, not those that dazzle, are the qualities for domestic life. These truths, though self-evident, are apt to be forgotten. The preceding remarks are far from exhausting the relative duties of husbands and wives; they convey a few simple lessons, the study of which will go a long way towards the promotion of domestic happiness.

The Wife.—Marriage should be considered as the most solemn league of perpetual attachment; a state from which artifice and concealment are to be banished for ever; and in which every act of dissimulation is a breach of faith. This should be equally impressed upon husbands and wives. The power of a wife for good or evil is incalculable. A good wife is to a man wisdom, courage, strength, and endurance; a bad one is confusion, weakness, discomfiture, and despair. No condition is hopeless when the wife possesses firmness, decision, and economy. There is no outward prosperity which can counteract indolence, extravagance, and folly at home. Man delights in enterprise and in action; he expends much of his moral force in conflicts with the world, but to sustain him he needs a tranquil mind and a whole heart. Home should therefore be to him a place of repose and cheerfulness; and under these influences his soul renews its strength again, and he goes forth with fresh vigour to encounter the labour and trouble of the world. But if at home he finds no rest, is met with bad temper, and unfeeling reproaches, the love of home vanishes. Command a husband's attention by being attentive to him; never exact anything, and you will obtain much. Appreciate a husband's attentions, and his kindness will not weary. A wife may have more sense than her husband, but she should not appear to know it. The female character should, from its earliest formation, be moulded to its important duties as the friend and improver of man. This is not slavery, it is exalted duty, and will rarely fail to bring its own reward.

THE CLOSING OF THE VOLUME.

I.

As leaf by leaf, so day by day,
The story of our Life speeds fast;
Our eyes grow dim, our locks turn grey;
Yet Memory enshrines the past,
And peaceful years reward the Sage
Who leaves of Works good trace behind;
Whose virtues gild each thoughtful Page,
Adorning Life, as Heaven designed.

II.

Dark tempests gather round the Soul
That heeded not a guiding Star,
Nor watched the index to the Pole
Which points our Destinies afar.
From ev'ry Wind of Heaven that blows,
From each bright Orb that shines above,
From waking Morn to Eve's repose,
Come Lessons of Creative love!

III.

Could we but read, when Life began,
The Story that our deeds will frame,
How righteously each heart would plan,
To shun the toils of Sin and Shame!
God for our Guide, Love for our Creed,
And Truth our ever-constant Friend—
Then Peace would close our days indeed,
And "BEST OF EVERYTHING," OUR END!

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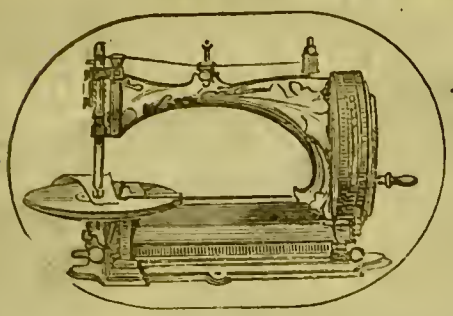

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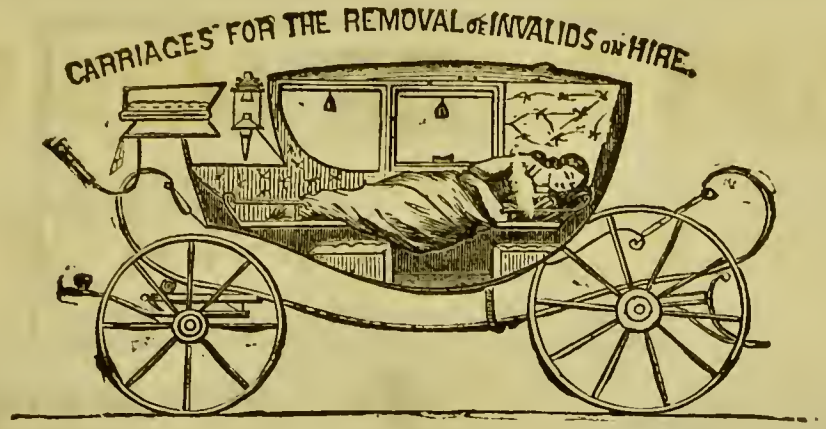

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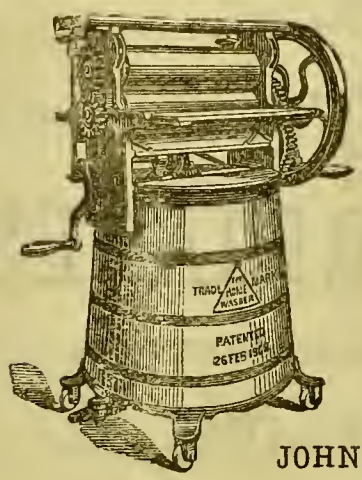

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